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MONTHLY BULLETIN

HEALTH DEPARTMENT

CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

All communications relating to this publication should be addressed to the
HEALTH COMMISSIONER, BOSTON, MASS.

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BOSTON, JANUARY, 1923.

No. 1

PUBLIC HEALTH CONDITIONS GENERALLY IN BOSTON DURING THE YEAR 1922.

The following is a comprehensive résumé of health conditions generally in Boston during the year just ended.

Vital Statistics Generally.

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The following table contains a general synopsis of the vital statistics for 1922, with comparative data for the two previous years.

CLASSIFICATION.	1922.	1921.	1920.
Total deaths.....	11,420	10,220	11,601
Death rate per 1,000 population.....	14.95	13.5	15.5
Total live births.....	18,552	19,397	19,494
Birth rate per 1,000 population.....	24.28	25.6	25.9
Total deaths under one year.....	1,720	1,499	1,966
Infant mortality rate.....	92.71	77.3	100.8
Total deaths from:			
Alcoholism.....	117	70	31
Appendicitis.....	112	154	116
Cancer (all sites).....	1,123	1,056	968
Diabetes.....	222	149	175
Diarrhea under two years.....	218	207	361
Pneumonia (broncho).....	601	426	689
Premature birth.....	373	320	390
Puerperal diseases.....	156	149	157

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CLASSIFICATION	1922.	1921.	1920.
Total deaths from so-called degenerative diseases:			
Arterio sclerosis.....	498	489	513
Cerebral hemorrhage.....	644	636	552
Heart disease.....	1,765	1,462	1,474
Kidney disease (nephritis).....	646	543	604
Total deaths from:			
Accident.....	594	507	510
Homicide.....	31	33	38
Suicide.....	126	102	100

The table below gives a statistical comparison of cases and deaths from the reportable diseases for the years 1922, 1921 and 1920.

DISEASES.	1922.		1921.		1920.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Anterior poliomyelitis.....	49	11	51	12	214	48
Cerebro-spinal meningitis.....	24	11	54	28	43	33
Diphtheria.....	2,992	143	2,992	148	2,010	140
Encephalitis lethargica.....	47	24	78	29	28	17
Influenza.....	1,887	66	148	22	8,392	479
Measles.....	5,356	46	3,396	38	6,518	65
Pneumonia (lobar).....	1,391	669	1,098	467	1,522	672
Scarlet fever.....	1,520	45	1,999	53	2,154	71
Tuberculosis (pulmonary).....	1,994	724	2,177	760	2,308	821
Tuberculosis (others).....	357	119	366	117	317	135
Typhoid fever.....	116	11	142	24	141	11
Whooping cough.....	1,567	84	689	33	2,550	155

In connection with these figures it is noted that there is a total of 845 live births below the total number of births for 1921, and 942 below the total for 1920, with corresponding decreases in the birth rates. The infant mortality rate for 1922 is the lowest rate on record in the department, except the year 1921, when a rate of 77.3 was established.

A notable increase appears in the deaths from alcoholism, with 117 deaths in 1922, as compared with 70 and 31 in the years 1921 and 1920, respectively. Deaths from cancer seem to be on the upward trend as indicated by deaths in 1922, 1921 and 1920, of 1,123, 1,056 and 968, respectively. Heart disease, also, seems to be a

fatal disease of more than ordinary significance in 1922, when there were 1,765 deaths as compared with 1,462 in 1921, and 1,474 in 1920. Influenza occurring in a mild epidemic form in early 1922, provided 1,887 cases, but there were but 66 deaths. Deaths from pulmonary tuberculosis in 1922 were the lowest on record in the department, there being only 724 deaths.

Medical Inspection.

Influenza.—During February, 1922, there prevailed in Boston in epidemic form an infection of the upper respiratory passages accompanied by marked constitutional symptoms and a temperature perhaps as high as 103 degrees Fahrenheit. The total number of cases for February reported as influenza was 1,380, and of lobar pneumonia 282, with 28 deaths from the former and 112 deaths from the latter. The disease spent itself in March, however, causing no further anxiety from the possibility of a recurrence of the devastating outbreak of influenza in 1918 and 1919.

Typhoid Fever.—With 116 cases and 11 deaths in all from this disease, it is notable that 22 cases and 3 deaths occurred in the month of September alone. Most of them were caused from sources traced to outside the city. It is doubtful whether or not the eating of shellfish from polluted shore areas or handling shellfish or worms from such areas in connection with their use as bait is the source of infection, although evidence points strongly to it as such.

Chicken Pox.—This disease provided a considerable number of cases during the month of November. Special attention was paid to the 183 cases reported, the medical inspectors visiting having in mind the possibility that a reported case of chicken pox might be an unreported case of smallpox. In order that physicians might be on guard against such a possibility a special circular relative to smallpox was issued to all physicians in the city.

Whooping Cough.—During the last three months of the year about 900 cases of this disease were reported as against only 650 during the preceding nine months. This sudden increase of reported cases is probably attributable to the discovery of these cases as a result of the supervision exercised by the school medical inspection forces.

Hookworm.—A change in the port of entry of arriving Orientals in this country from Victoria, B. C., to Boston as far as examination of these immigrants is concerned, resulted in the discovery and consequent reporting to the Boston Health Department of 47 cases of hookworm found in Orientals shipped in bond to Boston and examined here. These Orientals furnish nearly all of the cases of hookworm.

Trichinosis.— Three cases of this disease appeared in Boston during October. Two of them were in the same family, man and wife. The wife reported eating pork chops in an adjoining city, and she stated they were well cooked. But even though the eating of these chops may have been the cause of the infection, properly cooked pork chops should not have caused the disease.

Leprosy.— In September a male resident of Cambridge reported at a Boston hospital for treatment and was reported to the Boston Health Department as having leprosy. The young man, about sixteen years, had been living in New Bedford, but originally came from Portugal.

Diphtheria.— With the exception of a decided increase in the number of cases of diphtheria in November, 290 having been reported, there was a general decrease in the number of these cases reported since January. The existence of 31 cases in the month of July in one institution serves to indicate the need for constant vigilance in the matter of proper isolating and quarantine precautions with respect to this disease.

Dog Bite.— Cases of dog bite reported so numerous during the year caused the City Council to pass an order restraining or muzzling all dogs for a period of ninety days. All cases requiring it were given the anti-rabic treatment as a preventive against rabies.

Detention Hospital.— The remodeling of the hospital inclosure at the Detention Hospital during 1922, including the straightening up of the hospital building which was badly out of level, the providing of new isolating rooms and a room for a modern sterilizer and laundry equipment, with additional quarters for nurses, places the hospital more nearly in a condition suitable for the care and treatment of patients under observation or treatment for communicable diseases.

Health Unit.— A new health unit is to be started in the North End section of the city, through the completion of arrangements made possible in 1922 under the George Robert White Fund. The site selected will save a considerable amount of money since an unused police station building is to be remodeled to house the new unit.

Dental Clinic.— Supplies and equipment were provided and arrangements completed for the professional services necessary for the new dental clinic established at the Blossom Street Health Unit. Pre-school-age children will be given dental treatment as a start.

Schick Test.— The administration of the Schick-toxin-antitoxin immunization treatment against diphtheria was began under the direction of the newly appointed epidemiologist, Dr. John A. Ceconi, on May 6, 1922. Work was first started in the parochial schools and institutions, the public schools being provided with a degree of

medical supervision that does not exist in the parochial schools and institutions of the city. The Medical Advisory Board appointed by Mayor Curley went unanimously on record in favor of the furtherance of the Schick test, and accordingly all physicians in the city were informed in detail with respect to it. In all, during 1922, 27,061 Schick tests have been performed, and the efficiency of the procedure may be realized when it is considered that in this large number there has not occurred one untoward result or accident. Complete and detailed records of all children thus tested are kept in the department available for reference and epidemiological study.

Administration.

Regulations.—Toward the latter part of the year work was started on a publication for ready reference containing the rules and regulations of the Health Department, including also laws, special and general, and city ordinances relating to public health. This publication is now practically ready for the printer.

Garbage Disposal.—A new long term contract was awarded by the city in July, 1922, for the disposal of all municipal refuse. The connection of the Health Department therewith is found in the provision in the contract to the effect that where incineration of refuse is undertaken the process shall be such as to eliminate smoke and disagreeable odors, the existence of which will be a matter that will require supervision by the Health Department. In this connection it might also be stated that a law passed in 1921 resulted in the passage of regulations by the department relative to the transportation through the streets of Boston of garbage, house offal or other offensive substances for the better control of those operating under this law.

Money Receipts.—The total receipts from all sources for the year 1922 was \$19,506.78, as against \$16,162.70 for the year 1921; \$2,699.79 of the total 1922 receipts was from convenience station coin locks on private pay lockers and \$418.39 from personal weighing scales installed in some of these stations.

Prosecutions.—There were 305 cases of food violations brought to the attention of the courts for adjudication. Of the cases found guilty fines aggregating \$2,693.65 were imposed. Similarly, 336 cases were prosecuted for violation of the general nuisances laws, and of the cases found guilty, fines aggregating \$343.45 were imposed.

Laboratory Division.

Swimming Pool Examinations.—A special investigation of the condition of the water at high and low tides at the North End Beach was conducted during October, report of which was forwarded to the

Park Department, with which department the Health Department endeavors at all times to co-operate so as to insure proper sanitary conditions of municipal pools.

Rat Trapping and Examination.— Since the spring of 1921 rat trapping and examination has been carried on as an intensive campaign. In October, 1922, this practice as an intensive feature was temporarily discontinued, the alternative plan being to trap and examine rats one week each month. No suspicious plague infected rats have been found to date in 1922, although 7,692 rats were examined during the year.

Sanitary Inspection.

Districting.— Commencing April 1 all inspectors, who formerly reported at the central offices daily at nine o'clock, were instructed to call for work assigned and sent to the post office nearest their place of residence or assigned district at nine o'clock each morning and mail their work back to the office each day so as to have it arrive in the morning mail following. This plan has worked out very satisfactorily since its inauguration, and has since also been instituted in the nursing and food inspection services with equal success. It enables the time spent in traveling from home to the office each morning to be saved to these field representatives and utilized in the performance of daily assignments.

In September the city was redivided into sanitary districts and new men assigned with very little confusion. It is expected that better control of the work of sanitary inspection of the city will result.

Demolitions.— Acting on the suggestion of Mayor Curley a total of about thirty old and dilapidated buildings throughout the city were removed by the owners thereof at the instance of the Health Department. These buildings were very old and in some instances a distinct fire menace and danger to safety, besides being a detriment to the value of adjoining properties.

Offensive Trade Establishments.— Night and day investigations were conducted during the year, during the warm weather, so that information might be officially at hand concerning the possible existence of offensive odors emanating from certain trade or manufacturing establishments which might be alleged to be a nuisance. Measures of correction were applied where necessary and with apparent success.

Survey of Alleys.— An extensive survey conducted at the instance of Mayor Curley was made during July of all alleys north of Massachusetts avenue in the city proper with a view to their proper paving and draining.

Street Car Ventilation, etc.—A conference with representatives of the Trustees of the Boston Elevated Railway was held during the latter part of 1922 with a view to improving these conditions. Complete co-operation was received.

Gas Fixture Examination.—Nine hundred original inspections of premises for defective gas appliances and 199 special complaints were made and investigated. The majority of the complaints were specially referred by the Police Department of instances where deaths or near-asphyxiations occurred as the result of illuminating gas poisoning, or from suicides by inhaling illuminating gas. An additional gas fixture inspector was employed to aid in this work.

Food Inspection.

Condemnations.—With a view to keeping from the market articles of food that are not fit for sale and use as such, the Department made several large condemnations during 1922. In one instance, ten tons of beef stickers were condemned as unfit for food. A lot of beef contaminated with tuberculosis, five tons of prunes and a large shipment of oranges were also condemned.

In one instance a fine of \$300 was imposed by the court on a dealer who had unstamped and diseased meat in his possession with intent to sell. The absence of an official inspection stamp on meat carcasses is a cause for special investigation and examination by the inspectors to determine whether or not its absence indicates that the carcass might be tainted and unfit for use as food.

City Institutions.—The department assigns an inspector to examine foodstuffs purchased for use at city institutions before such food is prepared for use as such.

Licensing Board Co-operation.—A new method was discovered during the year whereby negligent restaurant keepers might be compelled to meet health requirements. On complaint to the Licensing Board a hearing was held at which the delinquent's license as a common victualler was suspended until the premises were put into satisfactory condition, if he showed part negligence or further intention to delay. In one instance the lesson was so salutary as to cause the offender to clean his premises to such good effect that his suspended license was restored to him in forty-eight hours. In three cases the licensees were either forced out of business or given time to discontinue. This plan seems entirely well advised.

In connection with licensing by the Licensing Board of "soft-drink" establishments the Health Department inspected all such places that were not already on record in the Department, and in no case was it necessary to forward an adverse report of conditions to the Licensing Board.

Supreme Court Decision.— In May the Supreme Court upheld a fine of \$50 previously imposed by the lower courts on a corporation contending that the Health Commissioner had no authority to make a regulation so broad as to compel the denaturing of “rot” and “spot” eggs with a carbolic solution or its equivalent and the keeping of them in a metal container. The corporation refused to comply with this regulation passed by the present Health Commissioner in his previous term of office, and the case was taken to court where the decision of the Supreme Court finally dispelled any question of the validity of the regulation.

Raisins.— A process intended to destroy bacteria in raisins by treating them with a carbon-tetrachloride solution generated to a gas at 91 pounds pressure at 80 degrees Fahrenheit and then screen and offer them for public sale, was found, after observation and bacteriological examination of the processed raisin, not to destroy the bacteria and therefore was not permitted here.

Saccharin in Soft Drinks.— A report that saccharin was being used by soft drink manufacturers in their products was found unwarranted after laboratory examination of numerous samples taken.

Bakeries.— A very small percentage of bakeries were served with notice to abate nuisances found upon inspection preliminary to a report required to be made to the Department (State) of Public Health, by law.

Poultry Sales.— During Thanksgiving and Christmas special attention was directed in the market and suburban districts to the sale of poultry. Slightly more than 100 pounds were seized and condemned and but one complaint was received, indicating the high quality of the poultry offered for sale.

Patent Medicines.— Distribution by a nationally known distributing concern of samples of a well-known laxative tablet was prevented, as a law violation, even though the samples were placed directly in the hands of adult members of households canvassed. The City Law Department passed informally upon the illegality of the practice, and the practice was ordered stopped, the distributors withdrawing their agents.

Milk and Dairy Inspection.

Icing and Cooling of Milk.— Because of shortage of ice by many producers during early 1922 particular attention was paid to this matter by the Health Department to insure proper cooling and ice in milk cars used for transportation of Boston's milk supply to the Boston market. Distributors whose products showed an excessive number of bacteria were closely supervised at this period with a view to the improvement of their operating methods and equipment.

Pasteurization.— A special circular was issued in April to those engaged in pasteurization of milk or cream for final sale in Boston requiring all heaters or pasteurizers used in the process of pasteurization of milk or cream to be equipped with suitable automatic time and temperature recording devices, the records being available as to length of time to which milk or cream was subjected to heat and the time of recording, for a year to public inspection.

Mixing of Milk Before Sale.— Another circular was sent in June to handlers of bulk milk and cream (hotels and restaurants) calling attention to the necessity for mixing the commodity prior to servings. Cream rises to the top of undisturbed milk and is likely to be unevenly distributed unless stirred, resulting in some purchasers being served with partially skimmed milk. Mixing both at the beginning of selling and prior to servings if the milk is allowed to remain in the container for any length of time was stressed as important to insure the serving of milk and cream of normal quality.

Survey of Boston Milk Supply.— A complete survey of the quality of the Boston market milk was made in the latter part of the year and resulted in the compilation in convenient tabular form of the quality of milk of all wagon dealers and of chain store operators so that the citizen can have available definite information from which to base a selection of a milk supply of quality.

General.

No attempt has been made in the résumé of the activities of the Health Department given above for the year 1922 to go into extreme detail in connection with the matters mentioned. Neither has it been deemed worth while to comment in detail concerning the various divisional functions of the department in this statement for the reason that the annual report of the department will contain a detailed account of operations of the department during 1922 in connection with medical inspection, vital statistics, sanitary, food and milk and dairy inspection, together with exhaustive reports of laboratory activities. This statement at this time is intended to give preliminary publicity to the work of the Health Department in the necessary interim between the close of the calendar year and the printing of the regular annual report.

Defective eyesight should be corrected as early in life as possible, because of the later influence in life of such defect; squinting, headache and scowling are often attributed to eye conditions that have not been corrected.

“FORTY-HOUR FLU.”

There has been prevalent this winter in Boston and other cities a sickness which in past years would have been called bad colds, but which has this winter come to be referred to as the “forty-hour flu.” There have been few deaths except in the aged or in persons in a generally debilitated condition, but many persons have felt pretty sick for a short time and various complications including pneumonia have not been uncommon.

We do not know as much about the factors which cause this “forty-hour flu,” or a bad cold for that matter, as we wish we did, but we do know enough about them to say that such infections of the nose, throat, or lungs prevail every winter under some name or other because people insist in living so that they swap with each other any disease germs or other disease-producing agents which they may have in their mouths or throats.

Here are some of the ways in which people swap each others disease-producing germs.

Coughing, sneezing or perhaps even loudly talking right into each others’ faces. If people are crowded closely, as in a street car, or anywhere else, the swapping process is greatly helped.

Putting the hand before the mouth in coughing and then using the hand to handle bread or candy, for example, which somebody else eats, or using the hand to shake hands with somebody who then uses his own contaminated hand to feed himself. The same thing can be accomplished even more effectually by coughing or talking over food that is going to be eaten by other people. Another way is to spread disease-producing organisms over glasses, cups, forks or spoons, as happens when we use them in eating or drinking and put them in lukewarm dishwater with other eating utensils either in the home or in a restaurant. Anything that is washed in the same dishwater is likely to become contaminated. It helps out also not to boil the dish towel too often. Some disease-producing organisms are so tenacious of life that they will live for twenty-four hours when transplanted to the edge of a drinking glass in this way.

From what has just been said it may be inferred that municipal health officials are not going to accomplish much in the way of the control of winter colds or “forty-hour flu” unless the people themselves are willing to change their personal winter habits and insist that other people do the same. Even changes in other respects in the personal winter habits of people will tend to lessen if not prevent the usual winter prevalence of infections of the nose, throat and lungs. Swapping disease germs with other people does not always cause sickness at once on either side. Certain disease germs

may not affect some individuals at all or may make the same person sick at one time and not at another. Something besides disease germs is often needed to make a person develop a disease. We do not understand as fully as we might wish the bodily conditions which enable a person to resist successfully any particular disease germs or which cause him to succumb to them but we know a good deal about this matter today. Among the facts we have learned and have known for a long time is that anything which lowers a person's general strength or vitality, or which puts any part of the body in an abnormal or unsound condition, tends to make a person more vulnerable to disease germs. We know that chronically inflamed throats or noses from any cause whatever tend to make people more susceptible to winter infections of the nose and throat. It has also been found that the natural secretions which keep a healthy nose or throat moist kills various disease organisms very quickly. The excessively dry air of our steam-heated human habitations during the winter dries up noses and throats and tends to rob them of this natural protection. Furthermore, the excessive dryness of the atmosphere combined with dust and other irritating impurities of workshops, offices, street cars and homes in the winter time, tends to keep the nose and throat in an irritated and otherwise unnatural condition ready to swell up on exposure to colder air and to become infected with any sort of a disease organism to which the person may be susceptible.

RAT PROOFING OF BUILDINGS.

An Economic Necessity and a Plague Preventive Measure.

Bubonic plague, or otherwise the old time "black death," is primarily a rat disease which is spread to human being by the fleas from sick or dead rats. By good fortune Boston has thus far escaped the plague, but during the last twenty-five years many cities all over the world have been called upon to do something to stop epidemics of this disease which were killing their people and paralyzing their business and commerce.

Time after time experience has demonstrated that the only way to stop the bubonic plague from killing human beings was to stop the disease among the rats and that the only way to stop the disease among the rats was to destroy a very large proportion of the rat population. It was further found that the only way the rat population could be appreciably diminished was to shut off their food supply and deprive them of suitable breeding places and refuges. In other words, it was found necessary practically to so rebuild whole cities as to build rats out of existence.

To say nothing of indirect losses in business and commerce the direct cost to a city of an outbreak of bubonic plague is enormous. Within a few months after the plague broke out in New Orleans, the amount that private property owners had been required to pay to rat proof their buildings has passed the \$10,000,000 mark and the rebuilding work that has since been carried out had scarcely begun.

When the plague broke out in Galveston a few years ago the federal and state officials did not wait for leisurely rat proofing by property owners but simply demolished buildings which were serving as a refuge or feeding place for rats and ripped out floors and walls indiscriminately wherever it seemed advisable to facilitate general measures for the destruction of rats.

Within a few weeks after the plague was discovered in Galveston, it was estimated that one twenty-fifth of the entire floor area of the city had been torn out and the owners left to rebuild in a rat-proof manner at their own expense. This is what awaits Boston if the plague breaks out here and Boston probably will stand for it too just as Galveston did when the city found that cessation of business and commercial relations with the rest of the world is the alternative.

An outbreak of plague in any city today is not to be feared because of the deaths it will cause, but as a commercial calamity. For years the Boston Health Department has been urging the business interests of Boston to adopt measures which will not only serve to mitigate such a calamity should it come but in the meantime will prove a good paying investment. From estimates based on surveys by government departments, it seems safe to assume that there are as many rats in Boston as human beings and that each rat destroys property to the value of about \$2 annually or in other words it costs about \$1,500,000 each year to support Boston's rat population.

As a result of the experience of the world in fighting the plague during the past twenty-five years, the cheapest and most effective way of rat proofing a building of any type of construction has been satisfactorily worked out and the Federal Government stands ready to furnish definite information on the subject. It is remarkable how reluctant property owners and builders are to avail themselves of this information.

We have had owners of buildings whose property was being destroyed by rats appeal to the Health Department to show them how to get rid of the rats. When we have showed them that they were troubled with rats because they were feeding all the rats in the neighborhood and have pointed out how the rats could be effec-

tually shut out of the building by a little simple rat proofing, the cost of which would not exceed the value of the foodstuffs the rats were destroying in a month, we have often found this advice discarded in favor of efforts to keep out rats by animal enemies or poison with only temporary success at the best. The Health Department is continually being obliged to threaten bakeries in the city with prosecution for maintaining a nuisance because we find it otherwise impossible to get them to expend for the effectual rat proofing of a bakery an amount of money no greater than the value of the foodstuffs the rats were destroying in a week.

While a great deal of effective and highly profitable rat proofing of old buildings can be done at a very small cost, it is, of course, impracticable to insist, in the absence of the plague, on a general rat proofing of old buildings in Boston. It will be bad enough to have to do this when the plague comes. But there is no earthly reason why rat-proof construction should not be considered by property owners and builders when designing new buildings if the cost is not going to be thereby appreciably increased. Furthermore, it is to be remembered that rat-proof construction always means increased fire protection for a building and its contents even if it does not involve actual fireproof construction.

DIPHTHERIA.

What is diphtheria?

Diphtheria is a disease produced in human beings by the growth of certain germs known as the Klebs-Loeffler bacilli. The disease is characterized by a peculiar local inflammation and by a general bodily poisoning.

In what part of the body do these germs grow?

They are usually to be found growing in the throat or nose, but may grow in the eyes, lungs and various other parts of the body, or in wounds.

What makes the disease so dangerous?

The local inflammation when it occurs in the throat may choke a person, but the great danger is from the general bodily poisoning.

May the Klebs-Loeffler bacilli grow in a person's nose or throat and not make him sick?

Yes; they may be planted in the noses and throats of many persons and even grow there and cause such persons little or no harm. Such persons are called "immunes" to diphtheria.

What makes such persons immune?

They have naturally in their blood an antitoxin which acts as an antidote to the diphtheria poison and which prevents the diphtheria poison from doing them serious harm.

Are many people immune to diphtheria?

Yes; most grown-up people are. Also most young babies are, but they are likely to lose their immunity when they are about a year old, so that most children from one to five years of age are not immune to diphtheria. That is why most of the cases and most of the deaths from diphtheria occur between these ages. As children become older more and more of them become immune to diphtheria so that by the time they are grown up, especially if they grow up in a city, most persons become immune to diphtheria.

Can you tell whether a person is immune to diphtheria?

Yes; there is a very simple test known as the Schick test which will tell this.

If a case of diphtheria occurs in a family why not test the other members of the family with the Schick test to see if they are immune?

Yes; perhaps under some circumstances, but as it takes from four days to a week or more to tell by the Schick test whether a person is immune to diphtheria or not, it is usually better to make sure that the other persons who have been actually exposed to diphtheria are immune by making them so at once.

Can a person then be made immune to diphtheria?

Yes; it may be done in either of two ways. One way is to give an injection of the diphtheria antitoxin prepared from horses' blood. This renders a person immune to diphtheria almost immediately and also serves to stop the disease if the person is already infected. But immunity produced in this way does not usually last longer than six months. The other way to make a person immune is to give repeated small doses of a mixture of the diphtheria antitoxin to which a small amount of diphtheria poison itself, or "toxin," has been added. The amount of toxin is unable to produce injurious effects. It is usually six months before a person becomes immune after treatment by this method, but he may be expected to remain immune for life. Young children or other persons may be made immune in this way so that they need never fear diphtheria. Your physician or the physician of the Boston Health Department will tell you when and how you can get this done.

How do diphtheria germs get into the throat or nose?

If there are diphtheria germs in a person's throat or nose, any discharge from the nose and any secretion from the person's mouth will contain diphtheria germs. Therefore, if such a person's fingers become soiled with secretions from the nose or throat, the diphtheria germs are liable to be transferred to anything he handles, and such articles when handled by other persons contaminate their fingers also, and they in turn may infect themselves by handling food or eating utensils with their contaminated fingers or by putting their contaminated fingers into their mouths or noses. Diphtheria is often spread in this way among children who, when playing together, are very likely to contaminate their fingers with the secretions from each other's mouth and nose. Diphtheria germs also are liable to be transferred to a person's mouth by the use of eating or drinking utensils which have been contaminated with diphtheria germs. It may be, for example, that a glass, cup or spoon has not been thoroughly washed before the use by other persons, or was washed in lukewarm dishwater with glasses, cups or spoons to be used by other persons.

How can one tell whether a person has diphtheria germs in his throat or nose?

If the germs are causing serious trouble there will be local inflammation with probably a grayish membrane which may make it easy to recognize the trouble as diphtheria. If a child has a sore, scabby nostril which occasionally bleeds a little, it is almost sure to be diphtheria whether the child appears to be sick or not. But in many instances we have to rely on a laboratory examination to tell whether a person has diphtheria germs in his throat or nose. A cotton swab is rubbed about the throat or nose and then put into a tube at the bottom of which is a preparation on which diphtheria germs will grow just as they will grow in the human body. The tube is then sent to a laboratory and later examined with a microscope to see if there are any diphtheria germs growing. It should be remembered, however, that it is not always possible to tell in this way on one examination whether a person has diphtheria germs in his throat or not. They may be there but may have failed to be transferred to the culture tube or fail to grow in it. Then, too, there are other harmless germs which look under the microscope very much like diphtheria germs, and under some conditions diphtheria germs themselves lose their power to do anybody harm so that it is sometimes necessary to make tests on animals to tell whether diphtheria-like germs are dangerous or not.

Suppose a child or other person in my family has a sore throat, how am I to know whether or not it is diphtheria?

Whenever a person has a sore throat, measures should always be taken to protect other persons, because there are other communicable forms of sore throat besides diphtheria. It is always best to call a physician at once to look at a sore throat. It may be that the doctor will see at once that it is diphtheria, and even if he only suspects it is diphtheria he will isolate the person at once for the protection of others and usually also give it diphtheria antitoxin at once. To make sure, he will take a culture of the throat and send it to the laboratory. Should laboratory examinations show that it is not diphtheria after all, no harm is done. Investigations by the State Health Department show that deaths from diphtheria are usually due to delay in giving diphtheria antitoxin.

What should be done with the other members of the household when a case of diphtheria or suspected case of diphtheria is found?

When a person in a family is suspected to have diphtheria, all the other members of the household should have cultures taken of their throats and noses at once, because it is often found that the cause of diphtheria in a family is some other member of the family who does not feel sick at all but who is growing diphtheria germs in his throat or nose and spreading them around. If a real case of diphtheria occurs in a family all the other members of the family should be immunized at once by giving them immunizing doses of diphtheria antitoxin, unless there be some special circumstances which would seem to make this procedure unnecessary.

What is meant by isolating a case of diphtheria?

By isolating a case of diphtheria is meant the keeping of the patient and everything that comes in contact with him apart from other people so that they may not be exposed to infection. A person with diphtheria should be kept in a room by himself. Only one person should be allowed to attend him. This attendant should wear a gown in the patient's room and remove it before leaving the room. The attendant should always wash his or her hands before leaving the room, first washing them with soap and hot water and then rinsing them in a disinfecting solution.

Nothing which comes in contact with the patient, glasses, cups, forks, spoons or other eating utensils, clothing, bedding, handkerchiefs, should be taken out of the patient's room or allowed to come in contact with other persons before being disinfected and sterilized. Cloths or papers which have been directly soiled by discharges from

the patient's mouth or nose should be dropped into a disinfecting solution and then burned. Disinfection can be done by boiling or by disinfecting solutions. No eating or drinking utensils should be brought out of the patient's room and used by other persons before being boiled for twenty minutes. The Boston Health Department will furnish written directions for disinfecting the room and the procedure will also be personally explained by the Health Department nurse.

How long must diphtheria be isolated?

Until diphtheria germs can be no longer found. This may mean long after he is apparently well. It is a rule of the Boston Health Department not to permit the release of a person who has had diphtheria germs in his throat or nose until two successive laboratory examinations show no germs to be present.

BOSTON HEALTH SHOW.

On October 6 to October 13, inclusive, a great Health and Sanitation Exposition will be held in Mechanics Building. This show is made possible through the co-operation of the various health agencies of the city with the Boston Health Department. It is to be held under the auspices of the City and State Health Departments and Boston Health Exhibit Committee. During that week the American Public Health Association will hold its annual convention in Boston, at the invitation of the local authorities.

This Boston Health Show presents an opportunity for the producers and manufacturers of things that have to do with public health to exhibit their products. None but ethical commercial exhibits will be accepted for exhibition, and only those commodities which have a direct bearing on public health.

The scope of the Boston Health Show is almost unlimited. It embraces among other things: Proper foods and beverages, their production, handling, dispensing and distribution; their preparation in the home and the public eating house or drinking place, their proper co-ordination for the best results in nutrition; water supply; housing, including heating, ventilation, outdoor sleeping facilities, etc.; dress, including among other things, infants' clothes, underwear, etc.; heating and ventilation of schools, meeting halls, public conveyances; shoes for babies and for deformed feet; sporting goods as means of recreation and health; industrial sanitation, that is, the sanitary construction and operation of factories and other working places, with the welfare work practiced by many employers; dental hygiene; personal cleanliness and means therefor, etc. These are

some of the many articles and methods useful or necessary for the practice of personal hygiene and public sanitation. Then there is the field of preventive medicine and of the curing of disease: The handling of tuberculosis; the prevention and checking of other infectious diseases; the production of preventives and remedies, as vaccines and antitoxins; special foods for special diseases; the operation of dispensaries and sanitariums, etc.

Lectures and moving pictures will bring home in a unique and striking way the lessons of health and its importance. Exhibits by city, state and private health agencies will show their methods and results.

These are a few hints of the magnitude, scope and importance of this exposition. It will be the first of its kind. It will be a way for Boston to blaze a new trail for the progressive improvement of the health of her own people.

Can you, as a citizen, imagine a worthier object to support?

Can you, as a business man, conceive a better opportunity to bring your products to the intelligent attention of the people?

Can you, as a manufacturer or dealer, afford to keep out of this unique and unparalleled selling campaign?

It is planned to group exhibits in certain classes in association with corresponding educational exhibits by the respective public health agencies. No exhibits will be admitted that are disapproved by the Board of Control made up of medical and health authorities.

Public spirit and enlightened self-interest join in urging all who produce anything that has a bearing on health to come into this exposition.

SCHICK TOXIN= ANTITOXIN ACTIVITIES OF BOSTON HEALTH DEPARTMENT MAY 6, 1922, TO FEBRUARY 1, 1923.

	Schicks.	Read-ings.	Posi-tive.	Posti-tive. Com-bined.	Pseudo.	Nega-tive.	T.A.T. INJECTIONS.		
							First.	Second.	Third.
Pre-school age.....							182	157	123
Re-Schicks.....	796	708	64	5	118	521	69	67	52
Incompleted cases.....	342	204	53	11	46	94	36		
Completed cases.....	29,224	27,240	12,284	1,553	3,951	9,452	12,662	11,475	10,610
Grand total.....	30,362	28,152	12,401	1,569	4,115	10,067	12,949	11,699	10,785

Immunity produced by active immunization with T.A.T. 90.2 per cent.

JOHN A. CECONI, M. D.
Epidemiologist.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING JANUARY, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	13	27.66
Seven days or less.....	2	4.26
Eight to fourteen days, inclusive.....	1	2.13
Fifteen to twenty-one days, inclusive.....	—	—
Twenty-two to thirty-one days, inclusive.....	2	4.26
WITHIN FIRST MONTH.....	18	38.31
Within second month.....	3	6.38
Within third month.....	2	4.26
Within fourth month.....	2	4.26
Within fifth month.....	—	—
Within sixth month.....	2	4.26
Within seventh month.....	—	—
Within eighth month.....	2	4.26
Within ninth month.....	1	2.13
Within tenth month.....	2	4.26
Within eleventh month.....	1	2.13
Within twelfth month.....	1	2.13
WITHIN FIRST YEAR PRECEDING DEATH.....	34	72.38
Within second year.....	3	6.38
Within third year.....	3	6.38
More than three years.....	7	14.89
Totals.....	47	100.03

SUMMARY OF THE WORK, JANUARY, 1923.

BUREAU OF ADMINISTRATION.

	Jan.	Dec.		Jan.	Dec.
Conferences	5	3	Day nurseries approved,	1	0
Hearings	1	2	Culture station ap-		
Prosecutions ordered	8	8	proved	1	0
Undertakers' application rejected.	1	0	Special drafts	2	5
Alcohol license suspended	1	0	Personnel:		
Orders	1	2	Appointments	0	7
Dump application:			Permanent	3	0
Approved	1	5	Provisional	1	0
Refused	0	1	Temporary	5	0
Lying-in hospitals approved	0	1	Refused	2	0
Offensive trade approved	2	0	Suspension	1	0
			Transfers	1	0
			Forcible removals	0	0
			Leaves of absence	3	0

LICENSES, PERMITS, ETC., ISSUED.

	Jan.	Dec.		Jan.	Dec.
Burial permits	1,401	1,217	Denatured alcohol li-		
Disinterment permits	1	11	censes	7	12
Milk licenses	258	131	Manicure-massage:		
Peddlers' licenses, gen-			Granted	35	34
eral	18	21	Beverage establishments		
Hen licenses granted	22	67	licensed	0	0
Stable permit granted	0	0	Grease	0	0
Stable permit granted			Dumps	7	28
conditionally	0	0	Sundry	0	0
Stable application re-			Day nurseries	0	0
jected	0	0	Undertakers	0	1

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Jan.	Dec.		Jan.	Dec.
Visits by medical inspec-			Vaccination certificates .	6	6
tors	1,367	1,624	Cases brought to Boston		
Deaths investigated	18	14	for treatment	87	120
Vaccination	7	3	Antitoxin administered .	31	5

NURSING SERVICE.

	Jan.	Dec.
Communicable disease visits	3,957	4,614
Babies visited, first visit	570	860
Revisits	1,493	1,585

HEALTH UNIT (Blossom Street).

	Jan.	Dec.
Health Department proper:		
Vaccinations	7	10
Vaccination certificates issued	6	4
Dental clinic:		
Number of treatments	998	0
Number of dismissals	106	0
Cases visited by nurses:		
Medical	294	232
Babies	62	147
Home-nursing classes:		
Number	6	11
Attendance	34	173
Complaints made of unsanitary conditions	14	16
Visitors:		
Resident	7	2
Nonresident	0	0
General:		
Persons applying for information	380	218
Baby Hygiene Association:		
Babies cared for	334	334
Babies newly admitted	22	14
Babies readmitted	0	1
Conferences:		
Number	5	6
Attendance	185	136
Homes visited by nurses	359	467

Boston Dispensary:	Jan.	Dec.
Calls by district physician	98	73
Boston Sanatorium:		
Calls by nurses in district	771	877
Jewish Welfare Center:		
Nutrition conferences:		
Number	5	3
Attendance	115	99
Nutrition classes:		
Number	5	4
Attendance	50	64
Instructive District Nursing Association:		
Visits made by nurses	1923	2,076
Prenatal classes:		
Number	1	3
Attendance	1	12

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Jan.	Dec.
New reports	3,009	2,359
Stores inspected	4,242	3,067
Sanitary defects remedied	237	250
Complaints at office	37	22
Referred to Sanitary Division	27	18
Milk applications approved	72	126
Street stands inspected	0	8
Peddlers:		
Applications for licenses approved	20	18
Vehicles inspected and approved	450	465
Court cases	3	7
Fines	\$10	\$135

CONDEMNATIONS.

WITHOUT REQUEST.

Apples	125 boxes	Corn starch	2 boxes
Pears	25 pounds	Barley	2 bags
Ground oats	60 pounds	Salmon	2 cases
Ham	23½ pounds	Peas	75 pounds
Lettuce	346 baskets	Canned apples, No. 10,	240 cans
Poultry	43 pounds	Canned tomatoes	180 cans
Turkey	205 pounds	Catsups	4 dozen
Candy	3,300 pounds	Eggs	1½ cases
Potatoes	50 bags	Cheese	15 pounds
Turnips	5 bags	Shortening	280 pounds
Carrots	4 bushels	Crullers	3 dozen
Apples	4 bushels	Doughnuts	7 dozen
Flour	50 bags	Oysters	1 quart
Sugar	50 pounds	Cranberries	1 crate
Beans	6 bags	Cabbage	2 barrels
Oatmeal	3 bags	Spaghetti	2 boxes
Rice	3 bags	Baking powder	16 cans
Tapioca	100 pounds	Raisins	35 pounds
Salt	200 pounds	Raisins	1 pail

Minced meat	1½ pounds	Frankfurters	5 pounds
Vanilla frosting	$\frac{3}{4}$ pail	Pork	90 pounds
Ammonia	2 pounds	Fresh shoulders	2
Nutmeg	6 pounds	Veal	1 leg
Black pepper	6 pounds	Lamb chops	25 pounds
Ginger	6 pounds	Boiled ham	18 pounds
Molasses	1 gallon	Salt pork	15 pounds
Mustard	5 pounds	Bacon	25 pounds
Mixed spices	4 pounds	Lamb shoulder	15 pounds
Uneeda biscuits	6 dozen	Lamb fores	64 pounds
Shredded wheat	3 dozen	Beef	150 pounds
Pies	8	Ham	28 pounds
Butter	30 pounds	Corned feef	80 pounds
Cheese	15 pounds		

REQUESTED.

Cucumbers	1 crate	Figs	67½ pounds
Peas No. 10	23 cans		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Jan.	Dec.		Jan.	Dec.
Cattle inspected	9	163	Swine inspected	6,923	7,161
Calves inspected	1,098	919	Parts condemned	266	370
Sheep	0	2	Animals condemned	5	6

DAIRY DIVISION.

	Jan.	Dec.		Jan.	Dec.
Total inspections	603	685	With milk rooms	135	160
Dairies inspected	257	237	Without milk rooms	122	77
Scoring above 50 *	158	170	Inactive	24	41
Scoring below 50	99	67	Total cattle inspected	3,487	4,145

* Passable mark.

BUREAU OF MILK INSPECTION.

	Jan.	Dec.		Jan.	Dec.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,518	1,196	Milk	621	503
Ice cream	0	0	Ice cream	0	0
Vinegar	52	125	Court cases	8	0
Miscellaneous	35	12	Fines	\$60	0

SANITARY INSPECTION.

	Jan.	Dec.		Jan.	Dec.
Original inspections	1,129	1,506	Car reports	0	59
New report	2,287	1,844	Complaints	859	569
Reinspections	6,068	5,451	Court cases	6	5
Legal notices served	162	165	Fines	\$88 60	\$15
Vacate notice served	1	0			

BACTERIOLOGICAL LABORATORY.

	Jan.	Dec.
Examinations for diagnosis and release:		
Diphtheria	2,033	1,851
Tuberculosis	319	250
Typhoid	36	38
Gonorrhea	625	517
Gonorrheal ophthalmia	78	54
Syphilis	1,101	884
Other examinations	*17	*23
Bacteriological examinations of milk	651	515
Examination of rats	184	0
Special K. L. examinations	984	307
Special virulence tests	14	0

* Malaria, 2; G. U. T. B., 6; salami for decomposition, 1; cultures for virulence, 3; dog for rabies, 1; water for pathogenic organisms, 1; dark field examination, 1; cat for rabies, 1; smear for organisms, 1.

VITAL STATISTICS, JANUARY, 1923.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING JANUARY, 1923, WITH COMPARATIVE FIGURES FOR JANUARY, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	1,278	1,018	+260	19.91	15.98	+3.93
Nonresidents deducted.....	1,103	894	+209	17.18	14.04	+3.14
By AGE:						
Under one year.....	184	132	+52	2.86	2.08	+.78
One year to four years, inclusive.....	92	58	+34	1.43	.91	+.52
Sixty years and over.....	516	413	+103	8.03	6.49	+1.54
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, So CALLED:						
Apoplexy.....	68	71	—3	1.06	1.11	— .05
Arterio-sclerosis.....	56	49	+7	.87	.76	+.11
Heart disease.....	210	187	+23	3.27	2.93	+.34
Nephritis, chronic.....	75	46	+29	1.16	.72	+.44
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,329	1,323	+6	20.70	20.77	— .07
b. Registered stillbirths.....	42	48	—6	.65	.75	— .10
Stillbirths per 1,000 births and stillbirths,.....				30.63	33.55	—2.92
c. Deaths of mothers from causes incident to childbirth.....	9	16	—7	.14	.25	— .11
Deaths of mothers per 1,000 births and stillbirths.....				6.56	11.67	—5.11
d. Deaths of children in first year of life... ..	184	132	+52	2.86	2.08	+.78
Deaths in first year per 1,000 live births,.....				138.4	99.77	+38.67
VIOLENCE:						
Accidents.....	34	50	—16	.53	.78	— .25
Homicides.....	2	7	—5	.03	.11	— .08
Suicides.....	12	4	+8	.18	.07	+.11
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	9	11	—2	.14	.17	— .03
Broncho-pneumonia.....	128	52	+76	1.99	.82	+1.17
Cancer.....	95	96	—1	1.47	1.51	— .04
Cirrhosis of the liver.....	7	9	—2	.11	.14	— .03
Diabetes mellitus.....	21	12	+9	.33	.19	+.14
Diarrhoeal diseases, children under two years of age.....	12	7	+5	.18	.11	+.07

REPORTABLE ILLNESS AND DEATHS IN BOSTON, JANUARY, 1923. — Concluded.

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
		1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:							
Anterior poliomyelitis.....	Cases...	4		+4	.06		+ .06
	Deaths..	1		+1	.015		+ .015
Cerebro-spinal meningitis.....	Cases...	3	3		.05	.05	
	Deaths..		1	-1		.01	- .01
Diphtheria.....	Cases...	311	278	+33	4.84	4.37	+ .47
	Deaths..	28	22	+6	.44	.34	+ .10
Influenza.....	Cases...	156	67	+89	2.43	1.05	+1.38
	Deaths..	32	7	+25	.50	.11	+ .39
Measles.....	Cases...	279	359	-80	4.34	5.64	-1.30
	Deaths..	4	1	+3	.06	.01	+ .05
Pneumonia (lobar).....	Cases...	255	143	+112	3.97	2.24	+1.73
	Deaths..	139	72	+67	2.16	1.13	+1.03
Scarlet fever.....	Cases...	267	232	+35	4.15	3.64	+ .51
	Deaths..	6	6		.09	.09	
Tuberculosis (pulmonary).....	Cases...	121	162	-41	1.88	2.54	-.66
	Deaths..	48	53	-5	.75	.83	-.08
Tuberculosis (other forms).....	Cases...	17	25	-8	.26	.39	-.13
	Deaths..	9	6	+3	.14	.09	+ .05
Typhoid fever.....	Cases...	1	5	-4	.01	.08	-.07
	Deaths..						
Whooping cough.....	Cases...	421	43	+378	6.56	.67	+5.89
	Deaths..	23	1	+22	.36	.01	+ .35

This table includes all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated populations for July, 1923, and 1922, based upon the federal census of 1920, have been used.

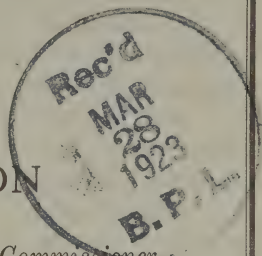
NOTE.

On the first day of January, 1743, the Selectmen gave a certificate to the Province Treasurer, that they had paid out of the town stocks for 9,280 rats killed in or near the town since the last day of August, £154, s. 13 4d. old tenor — and desired him to pay the same to Joseph Wadsworth, Esq., town treasurer.

From "Old Land Marks and Historic Personages of Boston," by Samuel Adams Drake, page 395.

1559

MONTHLY BULLETIN HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 12.

BOSTON, FEBRUARY, 1923.

No. 2

REPORTING OF COMMUNICABLE DISEASES.

Under the laws of Massachusetts a physician who visits a person professionally, and knows that the person whom he visits is infected with smallpox, diphtheria, scarlet fever, or any other diseases declared dangerous to the public health, is required to give written notice thereof, over his own signature, to the local board of health. Similar duty is imposed by a similar law upon the householder. The purpose of this reference to the legal duty imposed upon persons having knowledge of the existence of diseases declared dangerous to the public health is, however, to impress upon physicians the absolute necessity of reporting such cases immediately to the local board of health.

The local board of health is required to use all possible care to prevent the spread of infection from diseases dangerous to the public health. In order that this duty may be properly carried out it is essential that practising physicians within the City of Boston, as an ethical and legal duty, keep the Health Department informed of all such cases that come to their attention. This co-operation of the physicians is something that is required as an aid in the protection of the public health, and even though it is a mandatory duty

imposed upon physicians by the Commonwealth, knowledge of which is impliedly in the possession of all physicians, it is for the purpose of stressing the necessary importance of this duty that this reminder is addressed particularly to the physicians of Boston.

To bring the situation home more forcibly, the following statement of an actual occurrence within the past few weeks in Boston coming to the attention of the Health Department is set forth.

A physician had been called to attend a child of school age for an illness. The illness, as events later proved, was that of a contagious disease. The physician treated the patient for the illness diagnosed, but neglected to report the case to the Boston Health Department. It was only through exclusion from the school which the child was attending as a result of the discovery of symptoms indicating infection from a contagious disease by the school physician that the Health Department was informed officially of the existence of this particular case. The complete facts with respect to the original visit of a physician to the child, and his failure to report the case to the department, were brought out when a medical inspector of the department visited the child, who had been excluded from school, for the purpose of quarantining and giving instructions to the mother as to proper isolation from other children in the house, to prevent spread of the infection to them. As a matter of fact, the need for quarantining had entirely passed because of the delay in reporting the disease, which had spent itself at the time of the medical inspector's visit. If this case had been originally reported to the Health Department the child would have been immediately quarantined, and would not have been permitted to return to school until all danger from infection to others had passed.

Fortunately there was no spread of the infection to other children by the sick child while she was in the school. But this fortunate occurrence is not attributable to the family physician who neglected to report the case. It is attributable rather to the watchfulness of the school physician over the physical condition of the children under his care and supervision, and even though the case was finally discovered and reported in that manner, it is not an excuse for the physician who was originally at fault in not reporting it immediately to the Health Department at the time of his original visit three weeks before the case was brought to the attention of the department. Exactly what form of excuse the statement of the attending physician in question will take is not yet known, and until it is known it will not be possible for the Health Department to take any action with respect to his neglect in the situation outlined.

The necessity for taking punitive measures of any kind, however harsh or lenient they may be, should be entirely unnecessary

because of the absolute responsibility upon the physicians of Boston to see to it that they are not negligent in any single instance with reference to the reporting of communicable diseases coming to their knowledge. The experience of the physicians of Boston in their personal observations in their chosen field of endeavor will tell them more explicitly than can otherwise be pointed out to them that dangerous consequences are apt to result from the failure, in any single instance, on the part of a physician to report promptly to the Health Department a case of contagious disease coming to his attention. The physicians of Boston know that a child having a contagious disease and who is not properly isolated from other children in the family may pass that disease along to the others through eating out of the same dishes and using the same eating utensils that others in the family use, when no precautions are taken. The physicians of Boston also know that an unreported case of disease within their knowledge in a child of school age may result in the spread of the infection to others in the school which the child attends before the school physician has discovered and excluded the child from attendance; and it is entirely possible that for one reason or another the condition of the child may not come to the attention of the school physician at all during the entire illness of the child in question, thus increasing the danger of spread of the infection to other school children.

All of these facts are but mere repetition of facts within the knowledge of Boston physicians. Since the need for constant watchfulness on the part of health officials with respect to the good health of the community compels such officials to reiterate with emphasis, for instance, the importance of complete reporting of all cases of communicable diseases to the Health Department, and even though the physicians, collectively, feel that they are not lax in their duty in this regard, the laxity of one physician, however excusable, is sufficient reason for calling forcibly to the attention of all physicians the necessity for the exercise of diligence on their part to prevent lapses from the path of duty.

It is hoped and expected, therefore, that this statement will sufficiently bring home to Boston physicians a realization of the importance for complete co-operation with the Boston Health Department in the matter of reporting promptly all cases of communicable diseases coming under their supervision.

“As the earth, wealth, art, property, all must in a few years be given over to these little ones, may we not wisely use a large proportion of its income to make them worthier to possess it?”

DENTAL SERVICE ESTABLISHED AT THE HEALTH UNIT.

The idea of a health unit or center, supported in whole, or in part, by a municipality in which should be focused and from whence should radiate all of the public health work, as well as that under private auspices, has been nationally accepted as a sound theory since the establishment of the Boston Health Unit in 1916. At the same time there has developed a true conception of the type of service such a unit should give to the people of its district, with a clear, sound conviction that such service should have a maximum of educational emphasis along preventive lines, and a minimum of actual dispensary and medical service.

In other words, the unit should be, and Blossom Street clearly tries to be, primarily a clearing house from which the citizens may receive definite information about the medical resources of the community, and may be drawn into a diversified educational health program that aims in time to reduce to a minimum the need for medical care. The unit's specific function therefore is preventive, rendering so far as is possible only that treatment which may be truly classified under preventive medicine.

An earnest endeavor is being made to concentrate upon the prenatal period, the new-born and the pre-school age child, with a conviction that if a campaign of education along the lines of preventive medicine is urged during that period of life, benefits must derive when the child grows up.

The development of Blossom Street Unit in the past seven years has been with this theory in mind, and gradually one function after another has been added to its program of constructive service to the children of the West End.

The latest feature, that of the dental service, marks a long step ahead in several important particulars. The service is definitely for the young child up to seven years of age, that is, for children under school age and extending through the first school grade. It is also aimed to care for the dental needs of the expectant mothers of the district, it being recognized that the teaching of the care of the teeth and dental hygiene to the mother will have important bearing upon the teeth of the offspring.

The organization of the dental service of the Unit is unique and practical. While the equipment and operating expenses are met by the City of Boston and the station is under the general direction of the Health Commissioner through his representative, the director of the Health Unit, the actual dental work is carried on by that splendid organization, the Forsyth Dental Infirmary for Children, under the supervision of Dr. Harold DeW. Cross, its efficient and well known director. The work is being done by

two dentists and a dental hygienist in daily attendance from nine to five o'clock, selected by Doctor Cross from his group of specially trained workers, and directly responsible to him for efficiency and standardization. The equipment is modern in every respect, was selected in accordance with the wishes and requirements of the Forsyth Dental Infirmary, and leaves nothing to be desired.

The clients for the dental service are drawn from the children of the district not yet entered in the schools, as well as from those already enrolled in the kindergarten and the first school grade. The latter come in the care of the school nurses to whose fine co-operation is due much of the success already achieved.

It may be pleasing to those who desire figures and statistics to confirm the soundness of the theory that justified the establishment of the dental service and its local needs to quote the following statistics briefly:

The service was established on January 15, 1923, and figures for six weeks from the above date to March 1 show the following results:

There have been a total of 2,243 services rendered, with the following subdivisions: 1,942 dental operations and 301 prophylactic treatments, with 171 dismissals as entirely finished.

In addition the children, and often their mothers, have been given instruction in the need as well as the technique of keeping the teeth clean, and each child, after dismissal, is expected to return at the end of six months for examination and further treatment.

It is easy to see what the results will be in adult life if this pre-school care of the teeth could and will be extended to the whole child population of the city. The remedy of small dental needs at the outset, together with the early acquisition of proper habits of daily dental care, will undoubtedly change the serious situation which was found to exist among the young men drawn for military service during our late war, when the records showed that over 90 percent had dental defects.

VISIT OF PROFESSOR SCHICK TO BOSTON.

Boston has been fortunate in the past in its traditional progressive medical history. Boston has been doubly so recently in its function as host to one of the world's most worthy scientists, Prof. Belá Schick. Prof. Schick is known the world over as the inventor of a test to differentiate the susceptibles from the immunes to diphtheria. Before the advent of this test immunes as well as susceptibles were injected with antitoxin which necessitated not only a waste of material but a needless procedure.

Prof. Schick was primarily a guest of Prof. Milton J. Roseneau and in fact it was through Prof. Roseneau's influence that Prof. Schick came to Boston. While here, the learned professor was entertained by the Department of Public Health, the City Health Department, and by various medical societies.

A complimentary dinner was given to him at the Hotel Lenox where his Honor, Mayor James M. Curley, the Health Commissioner of Boston, the Commissioner of Public Health of the State of Massachusetts, and Prof. M. J. Roseneau, representing the Department of Preventive Medicine of Harvard University, were present. The dinner was also attended by a large representation of the Department of Public Health (State), the Schick staff of the Boston Health Department, and about one hundred and fifty physicians interested in diphtheria control. Prof. Schick was presented with a Schick outfit enclosed in a gold case, a duplicate of which was used by the Boston Health Department in its diphtheria control work. A screen picture of the largest Schick clinic ever held in this country was shown at this dinner. This took place at the Carney Hospital where 2,014 children were Schick tested in one afternoon. Prof. Schick was entertained at various Schick clinics held in this city under the auspices of the epidemiological staff of the Boston Health Department. He was also taken on tours as the guest of the Department of Public Health and Prof. Roseneau. In his closing remarks at the dinner tendered him, Prof. Schick said that it was impossible for him in words to express his thanks for the treatment he received while in Boston, but that it was sufficient to state his entertainment here was second to none that he had ever received.

MENTAL DISEASE, MAN'S LAST SPECTRE.

BY GEORGE K. PRATT, M. D.

Public Health is a term about which all of us have heard much the past few years. And yet we doubt if many have ever stopped to really consider how much we owe to these two simple words. Of course, every one knows that smallpox, that horrible scourge of past generations, is less active now than it used to be, but did you know that last year not one single death occurred from smallpox through the whole state of Massachusetts? The reason was that years ago a public health campaign was waged to urge vaccination and thus *prevent* smallpox.

Then there is the more recent but equally dramatic situation with regard to typhoid fever. For instance, due to the energetic measures of those doctors interested in the public health aspect of this disease, there were actually fewer numbers of cases of typhoid

fever among four million American soldiers in the World War than had formerly been found in one city block in Boston.

The conquest of malarial fever in the Panama Canal Zone is another witness to the triumph of public health campaigns over disease; and very recently we were told that the director of the United States census announced that there were ten thousand *fewer* deaths from tuberculosis in 1921 than in 1920.

And yet not so long ago the words "smallpox" and "tuberculosis" were synonymous with despair and loss of hope; a literal death warrant.

Today, there remains one great menace to our health and happiness that has still to be conquered, mental disease, so appropriately called "Man's Last Spectre!"

Unfortunately, very few persons think of mental trouble as a disease at all. Our attitude today towards this condition is much as it was three hundred years ago and very similar to the popular conception of smallpox in the early forties; that is to say, most persons regarded smallpox then, and mental disease now, as a sort of visitation of Providence or a punishment from an angered Supreme Being. And while we are more enlightened now regarding the cause and control of smallpox and tuberculosis, all too many continue to think of mental sickness as something that must be tolerated with as much resignation as possible.

But medical science offers a more hopeful outlook on this gloomy picture and experts tell us that ways are now known to prevent a certain amount of mental disease.

It might be well at this point to explain that when we use the expression "mental disease" we do not mean insanity alone. Among doctors, mental disease means any condition ranging from acute insanity through the realms of feeble-mindedness and some forms of crime to plain everyday so-called "nervousness." Indeed, nervous breakdowns cause more distress and discomfort in the community than does acute insanity. So, then, remember there are almost as many kinds of mental disease as there are of physical disease.

But we were saying that much of this mental sickness is known to be preventable. Unfortunately we cannot vaccinate against insanity or nervousness as we do against smallpox, but we *can* do other things that are valuable. In general, two conditions must be met if we are to prevent these troubles. One condition to prevention is that the early warning symptoms of approaching mental sickness be recognized at an early date; the second condition is that once the symptoms are recognized the patient be given prompt treatment in one of the many places designed for such cases.

But because a superstition of the Middle Ages makes people

even today feel that to be mentally sick is a disgrace, the early warning symptoms are often neglected or intentionally hidden until it is too late to avert the disaster.

Therefore it is necessary that if mental disease in Massachusetts is to be lessened, a large number of the public must be made familiar with what these early symptoms are; they must be taught that it is no more a disgrace or a crime to have an attack of mental sickness than it is to have appendicitis or rheumatism, and finally they must be informed where to go for help and what to do when early cases are recognized.

And so it is that a new division of that growing band of public health experts who conquered smallpox, malaria, and typhoid fever has commenced an attack on man's last spectre through an organization known as mental hygiene.

The Massachusetts Society for Mental Hygiene is a public health group whose purpose is to lessen mental disease and to increase mental health. It is a state-wide organization to which any one may belong by paying a small annual due. It tells people that a certain amount of mental trouble of all kinds is preventable, and how to prevent it. In commercial language the Mental Hygiene Society takes the discoveries and facts of the scientific world that would be of little use if nobody else knew about them, and advertises them, interprets them to the public, shows that same public where and how to use them. In other words, medical science makes the discoveries about mental disease, its cause and prevention, while mental hygiene applies them to practical community use.

And so it will not be long, we think, before Dr. Haven Emerson's prediction will come true when "the strange child, the worried mother, the confused workman will appeal to hospitals for relief from the twisted personality, the beaten brain and lack of self-control, as they now run to them for diabetes or appendicitis."

WHOOPIING COUGH.

General Information.

Whooping cough is caused by a small organism or germ discovered a few years ago and called from its discoverers the Bordet-Gengou bacillus. The organism is found in the windpipe and bronchial tubes of a person who has the disease in the earlier stages and is sprayed out into the air by the coughing and sneezing of such a person. It is also contained in the material which such a person may cough up and spit out. When another person breathes air into which the germs may have been sprayed or in any other way gets the germs into his windpipe he is likely to become infected and

develop the disease. The whooping cough germ causes such an inflammation of the bronchial tubes that they are sure to be infected with some other germs also. The seriousness of an attack of whooping cough depends largely on the character of these secondary infections, and, of course, on the general strength of the patient. In fact, while the whooping cough germs are present in abundance at the very beginning of the disease, they tend to disappear as infection with other germs take place, so while a person may cough or whoop for weeks or months on account of an inflamed condition of the bronchial tubes from secondary infection, the whooping cough germ itself is seldom if ever to be found in the material which a person coughs up longer than three weeks from the beginning of the disease. The whooping is caused by a spasm of the windpipe due merely to its inflamed irritable condition and a child may continue to whoop long after it is capable of giving whooping cough to others.

Danger of Whooping Cough.

Whooping cough kills more people in Boston than scarlet fever. Most of the deaths occur in children under two years of age and under one year it is very fatal. While serious complications and even deaths do occur at any age its greatest danger is to children under five years of age or in other words to children under school age. The prevention of death is therefore a problem of protecting the younger children in the family.

How Whooping Cough may be Avoided.

Measures must be taken to protect other persons, particularly young children, from a person with whooping cough before he begins to whoop as well as afterwards. By the time a person begins to whoop he has had whooping cough in its most contagious stage for perhaps a week. During this time he has had a dry spasmodic cough without a cold or other apparent cause for a cough.

Keep a Child with a Beginning Cough away from Other Children.

Even if he does not have beginning whooping cough he is likely to be in the early stages of some other communicable disease. Be especially careful to keep babies and the younger children away from other children or persons who are coughing.

Care of a Case of Whooping Cough.

Dust or dry stuffy air tends to aggravate a case of whooping cough. Give a child with whooping cough a room by himself and plenty of fresh air. Give the child every opportunity to rest and

sleep, night and day. Every case of whooping cough calls for attention by a physician. Under the supervision of the physician and the Health Department, keep the child in the open air as much as possible after the earlier stages of the disease have passed.

FACTS ABOUT DENTAL CARIES.*

(1) The commencement of caries, unless there is a defect of the enamel, always consists of the solution of enamel by lactic acid formed from the food.

(2) Vigorous exercise of the jaws is necessary for the proper development of the jaws and consequently for the regular arrangement of the teeth.

(3) Vigorous mastication and a good flow of normal saliva are essential for the proper cleansing of the teeth, or neutralizations of the acid formed.

(4) Illness during the formative period of the teeth may lead to mal-development and predispose to decay.

(5) The present universal prevalence is not due to inherited defects, it having developed during the last four or five generations.

(6) It is therefore due to change in environment arising during the last few generations. The only changes that have been suggested are changes in the food and the way it is eaten. It is the defective feeding of the mother and young child that causes defective development of the enamel and that this is the main cause of early decay. The principal change in our diet is the gradual elimination of hard fibrous food which by enforcing mastication should produce a good spacious jaw, regular teeth, and leave the teeth clean. The principal defect in our foods is their inability to create a good flow of normal saliva, which acts as a natural cleanser and protector of the teeth.

(7) There can be no doubt that mastication has decreased enormously in amount and vigor during the last few generations. This may be inferred from the coarser character of the food of by-gone times or proved by the worn condition of the teeth in skulls a hundred or two hundred years old. The force exerted in mastication properly performed with good healthy jaws is about 100 pounds, whereas the force exerted in mastication by a considerable section of the population is extremely small. This has been brought about in the first instance by soft feeding and drinking at meal times, and is intensified by caries, irregularities and inflamed condition of the gums.

*Selected for use in the clinic of the Preventive Dentistry and Oral Hygiene Department, Harvard Dental School.

(8) To prevent dental decay, masticate your food carefully. Do not drink with your meals. Do not eat between meals, especially candy and sweets. Close your meal with fresh fruit, or a crust of bread, not with sweets. Rinse the mouth very thoroughly after eating.

THE NORMAL BABY.

Careful mothers are anxious at all times as to whether or not their baby is thriving.

A baby that is progressing should show

A steady gain in weight.

Bowel movements normal in number, color and consistency.

Absence of vomiting and regurgitation of food.

A good appetite; clear skin.

Bright, wide open eyes.

Muscles that are alert and springy.

A contented expression.

Very little crying.

Quiet unbroken sleep, with eyes and mouth closed.

No evidence of pain or discomfort.

A constant growth in stature and intelligence.

Children vary in the rapidity of their development. The mother should not become unduly alarmed at variations unless they are of a marked difference from the above.

THE SICK BABY.

If the baby shows signs of illness, vomiting, diarrhœa, is feverish or has skin eruption, is nervous or restless, shows signs of exhaustion, or if the body is limp or cold, send for a physician.

Many of these symptoms may be forerunners of serious illnesses.

These symptoms may be of only slight consequence but if serious send for your physician. It is better to be safe than sorry.

TUBERCULOSIS DISPENSARIES AND HOSPITALS.

Late in the 1922 session of the Legislature, after considering various special bills relating to tuberculosis hospitals, an order was passed directing the Department of Public Health to investigate the entire subject of tuberculosis in the Commonwealth, including the matter of state, county and municipal tuberculosis hospitals or hospital district created by legislative act, reporting cost, maintenance, and physical valuations of property, and to report also as to the advisability of the Commonwealth taking over and there-

after maintaining either county or municipal tuberculosis hospitals or hospital district created by legislative act, with an estimated statement of the necessary cost involved; and to report further an opinion as to the general policy to be pursued by the Commonwealth as to methods of treatment and distribution of expense thereof in relation to the entire subject of tuberculosis in any such hospital or district within the Commonwealth.

Pursuant to this order a board was appointed within the Department of Public Health to make the required studies, and on January 10, 1923, the Commissioner of Public Health submitted a report in considerable detail, prepared in response to the legislative order referred to. This report is contained in House Document No. 1200, and contains a very interesting and exhaustive résumé of the situation as a result of the investigation conducted.

SCHICK TOXIN=ANTITOXIN ACTIVITIES OF BOSTON HEALTH DEPARTMENT, MAY 6, 1922, TO MARCH 1, 1923.

	Schick Tests.	Readings.	Positive.	Positive Combined.	Pseudo.	Negative.	T. A. T. INJECTIONS.		
							First.	Second	Third.
Completed cases.....	29,871	27,752	12,487	1,577	4,032	9,656	12,765	11,566	10,691
Re-Schicks.....	1,522	1,276	164	7	157	948	81	67	57
Pre-school age.....							205	187	161
Grand totals.....	31,393	29,028	12,651	1,584	4,189	10,604	13,051	11,820	10,909

General immunity produces 86.5 per cent.

A group of 521 recently re-Schicked shows the following percentage of immunity produced after first, second and third injections of T. A. T.

Immunity produced after 1 injection of T. A. T. 44.6 per cent.

Immunity produced after 2 injections of T. A. T. 77.3 per cent.

Immunity produced after 3 injections of T. A. T. 92.5 per cent.

CULTURES.

	Number.	Positive.	Negative.	Percentage.
Cultures of Positive Schick Reactors before T. A. T.....	1,663	103	1,560	6.5 per cent positive.
Cultures of Negative Schick Reactors.....	1,000	57	943	5.7 per cent positive.
Cultures of Positive Schick Reactors six months after T. A. T.....	1,347	36	1,311	2.7 per cent positive.

Virulence of tests of cultures before T. A. T. injections 0 per cent.

Virulence of tests of cultures after T. A. T. injections 0 per cent.

MEDICAL ADMINISTRATION.

Close personal supervision over the work of medical inspectors employed in the service of the Health Department is rendered more and more difficult by the increasing number of reportable diseases and the general work of the Health Department. Below is a copy of a circular of instructions to medical inspectors recently issued to the medical inspectors in the department.

Instructions to Medical Inspectors.

Medical inspectors are reminded that a medical inspector is paid to see that effective measures for the protection of the public are instituted when he is sent to visit a case of supposed communicable disease.

The "Handbook of Regulations" and various other written instructions will serve to guide him in certain matters, but it is to be remembered that a medical inspector has been selected as a medical inspector of the Health Department because of his supposed ability to tell what should be done to prevent the spread of a communicable disease, and to see that it is done. There may have been a time in the history of the Boston Health Department when a medical inspector could be watched closely enough to see if he was doing his duty in every case, but the number of reportable diseases and the general work of the department relative to the control of communicable diseases has so increased until now a close surveillance over the work of a medical inspector is impossible. He must be trusted to do what he ought to do, and to ask for help and say what help he wants, if he needs it.

For example: Take diphtheria. When a case of diphtheria is brought to the attention of a health department, it is the business of the health department to see that this case does not become a factor in the spread of the disease in the community. If a health department does not do this, it has no excuse for existence, and simply represents a waste of public funds. There are three essential things to be done to prevent this case from becoming a factor in the spread of diphtheria in the community.

1. An isolation of the sick person which will really serve to protect the public, even if not the patient's own family.

2. An immediate examination of the noses, as well as the throats, of all other persons in the patient's household to see if any of them present symptoms of clinical diphtheria; and the effective isolation of any person, or persons, who may show suspicious clinical symptoms.

3. The cultures of the noses, as well as the throats, of all "contacts" of the patient to see if any be "carriers," and to make such disposition of "carriers" or "laboratory cases" as may seem advis-

able. If the medical inspector has arranged with the attending physician and the family to have the Health Department nurse do this culturing it is his business to so inform the office.

These three measures are demanded in every case for the protection of the general public. The moral, if not legal, responsibility for doing these three things rests primarily on the attending physician and he ought to be made to do them. It is the duty of the medical inspector, nevertheless, to see that these three things are done promptly, if not by the attending physician by the medical inspector himself, or by somebody or somehow, and to ask the Health Department for whatever assistance he may need. This is what the medical inspector is paid for. He does not justify his salary by merely tacking up placards and making reports.

It is the policy of the Boston Health Department to require the medical inspector to see that three other things are done when he is sent to a case of diphtheria. The first two are required in the interest of the health of the patient and his immediate family, the third is called for in the interest of the public.

1. The medical inspector should see that the patient is given antitoxin in appropriate dosage promptly, unless there be some good reason why antitoxin should not be given. Clinical symptoms of diphtheria are to be regarded a sufficient reason for administering antitoxin without waiting for a laboratory report on a culture. It is the attending physician's professional, as well as moral, obligation to give antitoxin promptly unless contra-indicated. The Boston Health Department regards it as the duty of the medical inspector to see that the patient is given antitoxin promptly, either by the attending physician or by the medical inspector himself, unless there be sufficient reason why antitoxin should not be administered.

2. The Boston Health Department regards it as the duty of the medical inspector to see that all household contacts with the patient are immunized either by the attending physician or by the medical inspector himself, unless there be some good reason why this should not be done with respect to any and all of the members of the household, in which case the reasons for not doing so should be plainly reported by the medical inspector. There is no excuse for any misunderstanding about the duty of medical inspectors with respect to the immunization of contacts as above stated, and there is no reason why it should be left for the Health Department to discover, a week after immunization should have been done, that it had not been done.

3. It is regarded as a specific duty of a medical inspector when sent to a case of diphtheria to make some effort to discover the source of infection. It is understood that more often than otherwise the

effort will be futile, but this duty is not to be regarded as fulfilled by merely writing on the report card "Unknown" or "Indefinite."

Medical inspectors are reminded that attention to the matters specified in the foregoing are a well recognized part of their business and essential conditions to their employment by the city as medical inspectors of the Boston Health Department.

Medical inspector's case report cards are expected to show whether or not diphtheria contacts have been immunized and if not, why not. The chief medical inspector has been instructed to return to medical inspectors, for them to supply this information, any report cards in which this information is lacking.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.47	3.66	127
Anderson, Oscar A.....	12.50	3.73	30
Antetomasso, Peter.....	12.32	3.60	599
R. Barden Creamery Company.....	13.34	4.30	829
Barrow, Fred G.....	12.22	3.61	120
Barron, Clarence W.....	14.40	5.05	20
Barry, Michael F.....	12.34	3.60	10
Bemis, Henry G.....	12.16	3.56	16
Bergmann, John H.....	12.94	3.88	80
Bowditch, Estate, E. F.....	12.49	3.80	91
Brandley, T. J. & P. J.....	12.78	3.95	16
Brandon Farms Milk Company.....	12.10	3.53	300
Brookdale Creamery.....	12.54	3.76	82
Burns, James.....	12.37	3.75	50
Casey, John D.....	12.36	3.58	11
Cashin, James F.....	12.26	3.61	14
Chapin, George L.....	12.47	3.93	36
Childs Brothers.....	12.25	3.46	147
Clark, Levi.....	12.40	3.68	115
Cohen, Benjamin.....	12.46	3.73	23
Corkery, John H.....	12.30	3.53	487

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Cunningham, Paul.....	12.73	3.86	126
Creedon & Crowell.....	12.44	3.56	22
Cummings, F. S., Company.....	12.09	3.51	11
Cusick, William H.....	12.39	3.81	260
Deerfoot Farms Milk Company.....	12.74	4.03	30
Denehy, Timothy.....	13.18	4.50	90
DiMaura, Gaetano.....	12.80	3.80	81
Driscoll, William B., Company.....	12.41	3.70	7
Duggan Brothers.....	12.66	3.80	64
Edgerly, F. S.....	12.29	3.63	38
Elm Spring Farm Milk Company.....	12.32	3.63	414
English, John.....	14.00	4.50	12
Ferguson, Malcolm D.....	12.14	3.60	158
Garvin, Charles E.....	13.40	4.60	8
Giroux, J. E., & Co.....	12.32	3.65	20
Griffin, Joseph L.....	12.58	3.76	9
Griffin Brothers.....	12.75	3.91	638
Gushee, C. W., & Co.....	12.51	3.78	29
Hagar, J. M., & Son.....	12.53	3.73	35
Hancock, T. G., Company.....	12.42	3.73	57
Herlihy Brothers.....	12.58	3.93	172
Hickey, Martin J.....	13.04	4.01	13
Holden, John E.....	12.75	3.75	48
Hood, H. P., & Sons, Inc.....	12.11	3.26	73
Hurley, Michael F.....	12.50	3.70	90
Jones, W. T., & Co., Inc.....	12.53	3.78	15
Kendall Brothers.....	11.93	3.47	286
Kennedy, R. J., Jr.....	12.17	3.56	22
Kingston, Samuel.....	12.94	4.00	22
Klaw & Freeman.....	12.88	3.80	35
Knapp, George J.....	12.37	3.70	107
Lang, Michael.....	11.95	3.33	325
Larkin, Patrick.....	13.14	4.20	28
Larsson, Charles.....	12.26	3.56	27
Lesser, Joseph.....	12.53	3.73	460
Lincoln Farms, Inc.....	12.96	4.20	786
Lubin, Felix.....	12.30	3.63	53
Lyndonville Creamery.....	12.83	3.60	858
Magee, Nellie A.....	12.59	3.72	13
Manning, Peter E.....	11.78	3.30	332
Maple Farm Milk Company.....	11.89	3.41	468

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
McAdams, John F.....	12.41	3.60	116
McKernan, John.....	13.32	4.43	577
Mekosky, Henry L.....	12.14	3.50	13
Moore, Peter.....	12.24	3.50	314
Morgan, George D., & Son.....	13.48	5.23	14
Munchbach, George.....	12.54	3.71	44
Nelson & Bennison.....	12.22	3.66	455
Newton & Pope.....	12.89	3.86	28
Noble, W. F., & Sons.....	12.82	3.93	13
Plymouth Creamery System.....	12.62	3.88	100
Pond, Harvey L.....	12.90	4.06	753
Raycroft, Benjamin F.....	12.41	3.90	67
Robbins, F. E.....	12.50	3.71	11
Robinson, Albert J.....	12.56	3.83	479
Robinson, James A.....	12.71	4.00	703
Runkle, John C.....	12.37	3.70	153
Schuster, Adam.....	12.50	3.56	25
Seven Oaks Dairy Company.....	12.58	3.76	51
Shick, Jacob.....	12.19	3.56	361
Smith & Lynch.....	12.22	3.55	66
Somerset Farms.....	13.46	4.55	17
Sterling Farms Milk Company.....	12.25	3.53	12
Stone, H. L.....	12.56	3.70	111
Stuart, Wallis E.....	12.63	3.75	5
Sullivan, John D.....	12.92	4.14	168
Sullivan, John L.....	13.00	4.23	822
Turner Centre System.....	12.83	3.81	694
Upland Farms Milk Company.....	13.73	4.41	290
Vartarian, Setrag.....	12.07	3.48	233
Walker-Gordon Laboratory.....	12.36	3.68	4
Ware, G. H.....	12.70	3.81	36
Warren, Cornelia.....	13.46	4.45	15
Weiler, E., & Sons.....	12.40	3.76	27
Werner, Ferdinand, Company.....	12.36	3.56	381
Westwood Farm Milk Company.....	12.54	3.58	26
White Brothers.....	12.80	4.26	458
Whiting Milk Companies.....	12.33	3.70	189
Whittemore, Warner D.....	12.37	3.75	29
Winer, Morris.....	12.59	3.60	4,123
Wiswall, Granville A.....	12.54	3.71	23
Wittenberg & Reck.....	12.32	3.60	370

CHAIN STORE MILKS.

NAME OF DEALER.	Supplied By.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc.	12.37	3.71	34
John T. Connor Company.	Bellows Falls Co-operative Creamery Company.	11.86	3.20	35
Co-operative Grocery Company,	J. M. Hagar & Sons, Inc.	12.25	3.65	22
Cloverdale Creamery Company,	Plymouth Grocery System, Inc.	12.66	3.83	52
Economy Grocery Stores.	Plymouth Grocery System, Inc.	12.62	3.85	48
Morgan Brothers Company.	Own supply and Whiting Milk Companies.	12.36	3.61	613
M. O'Keeffe, Inc.	J. M. Hagar & Sons, Inc.	12.38	3.65	97
Rose Tea Company.	Whiting Milk Companies and H. P. Hood & Sons, Inc.	12.44	3.75	812

MEETINGS.

Meeting of the American Health Association will be held in Boston October 8 to 13, inclusive.

The annual meeting of the American Medical Association will be held in San Francisco June 25 to 29, 1923.

The Boston Health Show will be held in Boston October 6 to 13, inclusive.

At the annual meeting of the Boston Tuberculosis Association in Boston on January 25 the following officers were re-elected: President, Dr. John B. Hawes, 2d; vice president, Dr. James J. Minot; treasurer, George S. Mumford; clerk, Miss Isabel F. Hyams; and a council of forty-eight members, thirteen of whom are members for the first time. Doctor Hawes spoke of the work of the association during the year, especially of the Prendergast Preventorium for Children, illustrating his talk by means of lantern views, and Dr. Robert B. Kerr, executive secretary of the New Hampshire Tuberculosis Association, spoke on the place of voluntary tuberculosis organizations in public health work.

At its meeting in Boston of January 25 the Massachusetts Association of Boards of Health elected the following list of officers to serve the coming year: Capt. W. L. Young of Springfield, president; Dr. George L. Tobey of Clinton and Dr. Francis P. Denny of Brookline, vice presidents; Dr. W. H. Allen of Mansfield, secretary; Dr. Francis G. Curtis of Newton, treasurer; and for Executive

Committee, Dr. C. E. Simpson of Lowell, Prof. J. O. Jordan of Boston, Dr. Gardner T. Swarts of Providence, Cooper Gaw of New Bedford, and J. J. McGrath of Salem. The paper of the afternoon was on the Schick test by Dr. John A. Ceconi of the Boston Health Department.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING FEBRUARY, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	9	16.67
Seven days or less.....	2	3.70
Eight to fourteen days, inclusive.....	1	1.85
Fifteen to twenty-one days, inclusive.....	1	1.85
Twenty-two to thirty-one days, inclusive.....	—	—
WITHIN FIRST MONTH.....	13	24.07
Within second month.....	2	3.70
Within third month.....	1	1.85
Within fourth month.....	3	5.56
Within fifth month.....	3	5.56
Within sixth month.....	1	1.85
Within seventh month.....	2	3.70
Within eighth month.....	3	5.56
Within ninth month.....	2	3.70
Within tenth month.....	—	—
Within eleventh month.....	2	3.70
Within twelfth month.....	1	1.85
WITHIN FIRST YEAR PRECEDING DEATH.....	33	61.10
Within second year.....	10	18.52
Within third year.....	3	5.56
More than three years.....	8	14.81
Totals.....	54	99.99

NOTES.

The man with the concealed pistol is dangerous, but the man with the uncovered cough or sneeze is deadly.

Community sanitation promotes individual health and comfort. Help keep the community clean.

A great percentage of our population breathe through their mouths; this may be a habit or a defect, which should be corrected.

SUMMARY OF THE WORK, FEBRUARY, 1923.

BUREAU OF ADMINISTRATION.

	Feb.	Jan.		Feb.	Jan.
Conferences	6	5	Culture stations ap-		
Hearings (stable)	2	1	proved	0	1
Prosecutions ordered . . .	9	8	Special drafts	0	2
Undertaker's application			Personnel:		
rejected	0	1	Appointments	4	9
Alcohol license sus-			Permanent	0	3
pended	0	1	Provisional	0	1
Order	0	1	Probationary	2	0
Dump applications:			Temporary	1	5
Approved	3	1	Discontinued	2	0
Lying-in hospitals ap-			Temporary exten-		
proved	3	0	sion	1	0
Offensive trades ap-			Reinstatement	1	0
proved	0	2	Transfer	0	1
Disapproved	1	0	Suspension	0	1
Legal notices	156	162	Forcible removals . . .	2	0
Day nurseries approved,	3	1	Leaves of absence . . .	1	3

LICENSES, PERMITS, ETC., ISSUED.

	Feb.	Jan.		Feb.	Jan.
Burial permits	1,419	1,401	Denatured alcohol li-		
Disinterment permits . . .	4	1	censes	2	7
Milk licenses	126	258	Manicure-massage:		
Peddlers' licenses, gen-			Granted	22	35
eral	28	18	Grease	3	0
Hen licenses granted . . .	0	22	Dumps	3	7
Stable permits granted			Day nursery	1	0
conditionally	3	0	Garbage transportation .	6	0
Special milk license . . .	1	0			

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Feb.	Jan.		Feb.	Jan.
Visits by medical inspec-			Vaccination certificates .	2	6
tors	1,335	1,367	Cases brought to Boston		
Deaths investigated . . .	13	18	for treatment	113	87
Vaccination	2	7	Antitoxin administered .	13	31

NURSING SERVICE.

	Feb.	Jan.
Communicable disease visits	4,435	3,957
Babies visited, first visit	708	570
Revisits	1,414	1,493

HEALTH UNIT (Blossom Street).

	Feb.	Jan.
Health Department proper:		
Vaccinations	14	7
Vaccination certificates issued	8	6
Antitoxin injections	17	0

	Feb.	Jan.
Dental clinic:		
Number of treatments	1,245	998
Number of dismissals	65	106
Schick tests	154	0
Number of readings	97	0
Toxin-antitoxin administered	31	0
Cases visited by nurses:		
Medical	290	294
Babies	0	62
Home-nursing classes:		
Number	0	6
Attendance	0	34
Complaints made of unsanitary conditions	24	14
Visitors:		
Resident	4	7
Nonresident	5	0
General:		
Persons applying for information	289	380
Baby Hygiene Association:		
Babies cared for	10	334
Babies newly admitted	10	22
Conferences:		
Number	3	5
Attendance	126	185
Homes visited by nurses	524	359
Boston Dispensary:		
Calls by district physician	123	98
Boston Sanatorium:		
Calls by nurses in district	831	771
Jewish Welfare Center:		
Nutrition conferences:		
Number	4	5
Attendance	80	115
Nutrition classes:		
Number	4	5
Attendance	50	50
Instructive District Nursing Association:		
Visits made by nurses	1,765	1,923
Prenatal classes:		
Number	0	1
Attendance	0	1

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Feb.	Jan.
New reports	2,864	3,009
Stores inspected	3,791	4,242
Sanitary defects remedied	159	237
Complaints at office	28	37
Referred to Sanitary Division	17	27
Milk applications approved	19	72
Street stands inspected	3	0

	Feb.	Jan.
Peddlers:		
Applications for licenses approved	27	20
Vehicles inspected and approved	429	450
Court cases	6	3
Fines (defaulted \$6)	\$10	

CONDEMNATIONS.

REQUESTED.		WITHOUT REQUEST.	
Beef	561 pounds	Apples	1 barrel
Cabbages	25,000 pounds	Apricots	23 pounds
Lettuce	345 baskets	Beef	70 pounds
Lettuce	450 hampers	Pies	1
Tomatoes	43 crates	Poultry	28 pounds
		Prunes	100 pounds
		Salmon	187 cans
		Soda syrup	3 gallons
		Spare ribs	300 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	Feb.	Jan.		Feb.	Jan.
Cattle inspected	17	9	Swine inspected	5,443	6,923
Calves inspected	2,874	1,098	Parts condemned	174	266
Sheep	16	0	Animals condemned	10	5

DAIRY DIVISION.

	Feb.	Jan.		Feb.	Jan.
Total inspections	728	603	With milk rooms	175	135
Dairies inspected	253	257	Without milk rooms	78	122
Scoring above 50 *	200	158	Inactive	19	24
Scoring below	53	99	Total cattle inspected	3,283	3,487

* Passable mark.

BUREAU OF MILK INSPECTION.

	Feb.	Jan.		Feb.	Jan.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,142	1,518	Milk	408	621
Ice cream	1	0	Court cases	21	8
Vinegar	0	52	Fines	\$395	\$60
Miscellaneous	11	35			

SANITARY INSPECTION.

	Feb.	Jan.		Feb.	Jan.
Original inspections	1,237	1,129	Vacate notices served	2	1
New reports	2,135	2,287	Complaints	790	859
Reinspections	4,841	6,068	Court cases	12	6
Legal notices served	163	162	Fines	\$20	\$88 60

BACTERIOLOGICAL LABORATORY.

	Feb.	Jan.
Examinations for diagnosis and release:		
Diphtheria	1,552	2,033
Tuberculosis	260	319
Typhoid	23	36
Gonorrhea	514	625
Gonorrheal Ophthalmia	33	78
Syphilis	957	1,101
Other examinations	*15	*17
Bacteriological examinations of milk	408	651
Examination of rats	178	184
Special K. L. examinations	522	984
Special virulence tests	0	14

* Malaria, 4, G. U. T. B., 1; dog for rabies, 1; dark field examination, 2; cat for rabies, 1; canned corn for paratyphoids, 1; virulence tests, 2; cultures for Vincent's angina, 2; feces for typhoid, 1.

VITAL STATISTICS, FEBRUARY, 1923.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING FEBRUARY, 1923, WITH COMPARATIVE FIGURES FOR FEBRUARY, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	1,252	1,108	+144	19.50	17.40	+2.10
Nonresidents deducted.....	1,098	947	+151	17.10	14.87	+2.23
BY AGE:						
Under one year.....	177	166	+11	2.76	2.61	+.15
One year to four years, inclusive.....	83	76	+7	1.29	1.19	+.10
Sixty years and over.....	507	382	+125	7.89	6.00	+1.89
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy.....	61	58	+3	.95	.91	+.04
Arterio-sclerosis.....	49	53	-4	.76	.83	-.07
Heart disease.....	199	170	+29	3.10	2.67	+.43
Nephritis, chronic.....	69	45	+24	1.07	.71	+.36
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,343	1,395	-52	20.92	21.91	-.99
b. Registered stillbirths.....	54	55	-1	.81	.86	-.05
Stillbirths per 1,000 births and stillbirths,				38.65	37.98	-.67
c. Deaths of mothers from causes incident to childbirth.....	15	20	-5	.23	.31	-.08
Deaths of mothers per 1,000 births and stillbirths.....				10.74	13.79	-3.05
d. Deaths of children in first year of life... ..	177	166	+11	2.76	2.61	+.15
Deaths in first year per 1,000 live births,				131.79	118.99	+12.80
VIOLENCE:						
Accidents.....	48	44	+4	.75	.69	+.06
Homicides.....	2		+2	.03	—	+.03
Suicides.....	9	10	-1	.14	.15	-.01
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	17	6	+11	.26	.09	+.17
Broncho-pneumonia.....	118	99	+19	1.84	1.55	+.29
Cancer.....	98	90	+8	1.53	1.43	+.10
Cirrhosis of the liver.....	5	3	+2	.08	.05	+.03
Diabetes mellitus.....	24	14	+10	.37	.22	+.15
Diarrhoeal diseases, children under two years of age.....	9	11	-2	.14	.17	-.03

REPORTABLE ILLNESS AND DEATHS IN BOSTON, FEBRUARY, 1923. — Concluded.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:						
Anterior poliomyelitis.....	Cases... 1	2	—1	.015	.03	— .01
	Deaths.. 1	2	—1	.015	.03	— .01
Cerebro-spinal meningitis.....	Cases... 4	1	+3	.06	.01	+ .05
	Deaths.. 1	.....	+1	.01	.....	+ .01
Diphtheria.....	Cases... 217	285	—68	3.38	4.48	—1.10
	Deaths.. 11	12	—1	.17	.19	— .02
Influenza.....	Cases... 112	1,380	—1268	1.74	21.67	—19.93
	Deaths.. 23	28	—5	.36	.44	— .08
Measles.....	Cases... 390	499	—109	6.07	7.83	—1.76
	Deaths.. 14	5	+9	.22	.08	+ .14
Pneumonia (lobar).....	Cases... 247	282	—35	3.85	4.42	— .57
	Deaths.. 122	112	+10	1.98	1.76	+ .22
Scarlet fever.....	Cases... 305	193	+112	4.75	3.03	+1.72
	Deaths.. 5	8	—3	.08	.12	— .04
Tuberculosis (pulmonary).....	Cases... 119	185	—66	1.85	2.90	—1.05
	Deaths.. 57	71	—14	.89	1.11	— .22
Tuberculosis (other forms).....	Cases... 27	22	+5	.42	.34	+ .08
	Deaths.. 12	12	.....	.19	.19	.....
Typhoid fever.....	Cases... 4	7	—3	.06	.11	— .05
	Deaths.. ..	.....	.....	.....	.....	.....
Whooping cough.....	Cases... 319	31	+288	4.97	.49	+4.48
	Deaths.. 25	3	+22	.39	.12	+ .27

This table includes all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated populations for July, 1923, and 1922, based upon the federal census of 1920, have been used.

NOTES.

A city's health is its greatest asset.

Air your rooms, your grievances less. You will be happier.

To have a real good baby you must have real good parents.

1559
APR 130 1923
B.P.L.

MONTHLY BULLETIN

HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 12.

BOSTON, MARCH, 1923.

No. 3

TYPHOID FEVER.

Be Immunized Now.

Typhoid fever has greatly decreased in prevalence in this part of the country, but it has by no means disappeared.

Moreover it has a way of appearing in the form of sudden local outbreaks which are decidedly disconcerting to health officials. A generation or two ago a considerable proportion of the adult population had had typhoid fever at some time in their lives and were consequently immune for that reason. Now we must consider practically the entire young adult population as susceptible.

Boston's typhoid fever is almost all imported. For some reason not yet satisfactorily explained cases apparently of local origin occur from time to time in association with the Italian population, but otherwise for many years there has been in almost every case a clear history of infection outside the city.

Imported cases appeared steadily in Boston all through last summer and autumn and are now beginning to appear again at a much earlier season of the year than is usual. In the meantime

local outbreaks of typhoid fever are being reported here and there in New England as well as in other parts of the country and in Canada.

The Health Department's investigation of the cases of typhoid fever reported in the city serves constantly to emphasize the fact that typhoid fever still constitutes a real danger to anyone who has occasion to travel about even here in New England, whether for business or pleasure, and is a disease to which one is likely to find himself exposed when he least expects it. It is for reasons above mentioned that the Boston Health Department would urge everyone intending to leave the city during the year to get vaccinated against typhoid fever now and insure himself and his family against the financial loss and trouble which would result from an attack of the disease. The procedure is simple and inexpensive. It simply means three small hypodermic injections. It may mean feeling sick for a few hours after an injection or it may not result in any discomfort at all. It is not likely to cause one to feel sick enough to stop work. It means no open wound or sore to heal as in vaccination against smallpox. As two weeks should be allowed for the three injections, vaccination against typhoid fever cannot be left until just before one is ready to leave home. *The time to vaccinate against typhoid fever to secure protection for this season is now.*

DEATH RATES FROM TYPHOID IN CITIES OF MORE THAN 500,000 POPULATION
(JOUR. A. M. A.)

	DEATHS FROM TYPHOID PER 100,000 POPULATION.				
	1922.	1921.	Average 1916-1920.	Average 1911-1915.	Average 1906-1910.
Chicago.....	1.0	1.1	2.4	8.2	15.8
Boston.....	1.4	3.1	2.5	8.0	16.0
Cleveland.....	2.2	3.4	4.0	10.0	15.7
New York.....	2.2	2.1	3.2	8.0	13.5
San Francisco.....	2.2	4.2	4.6	13.6	27.3
Philadelphia.....	2.7	2.3	4.9	11.2	41.7
Buffalo.....	3.5	4.2	8.1	15.4	22.8
Los Angeles.....	3.7	2.6	3.6	10.7	19.0
Baltimore.....	4.0	5.4	11.8	23.7	35.1
St. Louis.....	4.2	3.8	6.5	12.1	14.7
Pittsburgh.....	4.6	4.1	7.7	15.9	65.0
Detroit.....	5.0	5.8	8.1	15.4	22.8

What may cure one man may poison another; there is no "cure all."

THE HAY FEVER SEASON APPROACHES.

The advent of spring with its new vegetation and dust brings an increase in the number of sufferers from what is variously known as hay fever, rose catarrh, pollenitis, etc.

The symptoms may vary in different individuals with respect to manner of onset, intensity, duration and tendency to bronchial irritation or asthma. The usual symptoms include itching and a burning sensation in the nose and eyes; paroxysms of sneezing and thicker as the disease progresses; more or less headache, intolerance to light, a flow of tears from the eyes and perhaps some irritation of the skin. There is likely to be considerable mental and physical depression and attacks of asthma, more or less severe, are not infrequent.

This affection is due to an abnormal sensitivity of the tissues of the sufferer to certain substances. It is a phenomenon similar to that which causes some people to break out with a rash after eating strawberries or lobster. Where small particles of such substances come in contact with the mucous membrane of the sensitized person's nose it will cause the violent symptoms of irritation of the nose, throat or perhaps even the bronchial tubes, but the same substances are capable of causing similar symptoms of irritation in a sensitized person if brought in contact with the abraded skin and are likewise capable of causing symptoms of gastric irritation, skin eruptions and general poisoning if taken into the stomach.

Hay fever is often found associated with deformities and other abnormal conditions about the nose or throat and doubtless tends to be aggravated by such conditions, but it is primarily due to the peculiar idiosyncrasy or "protein sensitivity" as it is called, on the part of the individual to the offending substances.

It would appear that persons are rarely if ever born with such a protein sensitivity. Sensitivity to one or more substances is sometimes found at as early as three years of age, but it is a phenomenon more commonly found in adults. How or why it may be acquired is not well understood. Excessive exposure to certain protein, however, sometimes seem capable of producing a sensitiveness to that protein. A protein sensitivity in an individual sometimes disappears as mysteriously as it is acquired. A person may suddenly find that ragweed or goldenrod no longer gives him hay fever or that a certain article of food no longer makes him sick. The person, however, who trusts that his susceptibility to hay fever will disappear spontaneously is likely to be disappointed. He had better look in hope of relief to the avoidance of exposure to the substances to which he finds that he is "sensitized," or to the so-called vaccine treatment which is based on the theory that a person may be "desensitized" by administering

to him small repeated doses of the offending protein. For determining what substances are causing hay fever or other manifestations of protein sensitivity reliance is usually placed on skin tests with protein extracts of perhaps fifty or sixty different substances to which the sufferer comes in contact. Very often the hay fever sufferer discovers without such tests what causes his trouble. Ragweed is a very common cause, so is the pollen of certain roses, or it may be goldenrod, or it may be a cat or a dog or the feathers in the pillow on which he sleeps. He may be able to learn either with or without skin tests that he can very easily avoid exposure to the substances which cause his suffering or perhaps he may find that his only hope of relief lies in the success of the vaccine treatment or a change of residence.

REPORT OF CASE OF TYPHUS FEVER.

A suspicious case of typhus fever was reported to the Boston Health Department during the month from one of the Boston hospitals. Bacteriological examinations by the Boston Health Department confirmed this diagnosis as typhus fever of a mild type.

This case is an adult case, resident of Boston, male, sixty-nine years of age, who has been employed in Florida as a painter. He returned to Boston, March 23, and complaining of illness called in his family physician. All necessary precautions have been taken.

ELIMINATE THE MOSQUITO.

Do you remember the evenings last summer when your peace and comfort were destroyed by the onslaughts of that tormentor of human flesh, the mosquito?

The mosquito nuisance can be controlled. The Canal Zone at Panama has eliminated the mosquito nuisance, and even New Jersey has been able to open up great tracts of land hitherto unusable as a consequence of a vigorous campaign against the mosquito. Massachusetts can do much to free herself of this pest if her citizens will start a campaign early this spring, each do his share and all pull together in a concerted attack upon the mosquito through his breeding places.

Many of our progressive communities have already taken hold of the mosquito problem by enlisting the active co-operation of every citizen, by passing special ordinances, and by making a small appropriation for mosquito work. Is your community one of these? Results are already showing the efficiency of the methods used but especially do they demonstrate the necessity for public knowledge of the simple principles involved in the process of extermination.

Mosquitoes do not ordinarily travel far, and it is probable that most of the mosquitoes which torture you in the summer have been bred either upon your own premises or near at hand. Here are a few of the means by which you may secure summer evening comfort, prevent illness, increase the value of your property and enhance the reputation of your town.

1. Enroll as a member of the Anti-Mosquito Association of Massachusetts, by signing and returning the attached slip. No dues are required.
2. Fill in before the 30th of April every hole and hollow on your premises which might hold water. As each mosquito hatched early adds millions to the supply of breeders, it is easy to see the necessity for early action.
3. Sprinkle with kerosene or crude oil every two weeks after April 15 all pools of standing water which cannot be filled or drained.
4. Remove every can, pan, bottle or other receptacle from your premises and brace every sagging gutter which might hold water.
5. Form a committee of your neighbors and townsfolk to study your local problem and to take concerted action to meet it. Don't forget the Boy and Girl Scouts.
6. Induce your town or city authorities to make a small appropriation for the oiling of catch-basins and marsh lands which serve as breeding places for enormous numbers of mosquitoes.
7. Ask the Anti-Mosquito Association of Massachusetts for a speaker to tell your committee, or your league, or your club, about the possibility of abating the mosquito nuisance and to suggest methods by which you can carry on the campaign with little or no expense.

The Anti-Mosquito Association of Massachusetts represents the best technical knowledge available in the country and it stands ready to serve you. The Association will supply technical information, and will offer specific advice with regard to methods by which these larvæ may be destroyed. The Anti-Mosquito Association may be reached by addressing Room 212, Pierce Hall, Cambridge, Mass.

I desire to become a member of the Anti-Mosquito Association of Massachusetts and thereby to lend my support to the movement for the suppression of the mosquito nuisance in this State.

Name.....

Address.....

MUNICIPAL SPRING CLEANING.

A city is an accumulation of homes and as is the cleanliness of the individual home so is the cleanliness of the city. The efficient housewife is the model of municipal cleanliness. Observe her when the first warm days of spring come. Her daily routine for the past winter has been that of scrupulous cleanliness throughout the household, yet now our thrifty housewife proceeds systematically to clean house, as the saying is, from "cellar to garret." Hers is the pride of accomplishment, a sense of thoroughness, of nothing left undone; and this is the model we now extol, all the more so this year because we have just passed through an unusually severe winter where conditions have conspired to prevent that daily disposal of household wastes which is so necessary to the public health of the city.

During the past winter the perpetual blanket of snow has covered up refuse matter that otherwise might properly have been removed, and which with the coming of the first warm days of spring leave the yards and alleys so unsightly and unhealthful. These, with the cellars, demand our first attention. In the removal of waste deposits, bear in mind the rules governing the city collecting agencies and you will find the work proceeding smoothly for all hands. Following is a brief summary of these rules:

Gather all the waste material that may have accumulated in your yard, or cellar, and place it in receptacles that will be removed by the city collecting agencies. If you are careful not to mix garbage or other household offal, with rubbish and ashes, you will find that there will be less danger of failure to remove the receptacles. Garbage and other household offal should be placed in separate, water-tight, tightly covered receptacles. Ashes should be placed in metallic receptacles that should not be filled more than four inches from the top. Rubbish such as old paper, bottles, tin cans, pieces of rubber, leather, pieces of wood, rags, and other similar wastes, should be placed in a metallic receptacle separate from either ashes or garbage. If you have large accumulations of old papers, or large pieces of cardboard that do not readily permit their being tossed into a receptacle but are bundled, be sure that you tie these bundles securely so that they will not be blown or strewn about by the wind or hurried or careless handling. If there is a private way connected with your premises which needs cleaning, it will add greatly to its appearance and to the appearance of your premises generally if you will clean this private way, too, while engaged in the cleaning of the yard or cellar.

While engaged in cleaning up your premises, it should not be the practice to utilize a vacant lot that may happen to be nearby as a depository for the wastes that you have collected from your premises.

This method of disposal is convenient, it is admitted, but it will be readily seen that is only temporary at best, and eventually will result in the existence of an unsightly outlook from your premises if others use such a vacant lot as a dumping place, also. Do not forget also that such unpermitted dumping on vacant lots is a violation of law. Aside from the desire not to violate the law, you will have sufficient pride in the appearance of the community in which you live not to be tempted by the opportunity to get rid of your immediate burden of refuse by depositing it upon a place that is apt to become a public depository and a consequent community eyesore.

You may have had difficulty in getting regular collections of household wastes during the winter and they have accumulated on your premises, but you will not use that as an excuse for allowing your premises to remain disorderly and unsightly, or carelessly kept. The very reason that the municipal collection of wastes may have been irregular during the winter months perhaps because of conditions that are difficult, if not impossible, to control or regulate, is an added incentive to the institution and maintenance of regular collection of wastes from households and other premises when the conditions that have heretofore caused the irregularity have either disappeared, or been entirely remedied. Let it be said of you that you have done your part toward maintaining the cleanliness of the community in which you live, by keeping your own premises clean and orderly. Besides the satisfaction of duty done you will benefit by the enhanced value of your property for dwelling purposes because of its freedom from flies and mosquitoes, rats and other obnoxious vermin and rodents.

Clean the yard or cellar or private way connected with your premises; place the wastes thus gathered in proper, separate receptacles; do not deposit such accumulated wastes in convenient nearby vacant lots. You will thus prevent the breeding of flies, mosquitoes, and other insects that are a source of discomfort and which have a disease breeding influence; and also prevent a means to be discovered by rats where they may be sheltered and fed and multiply to the possible economic damage of your property.

NOTES.

Good health is the first factor in human efficiency.

Health is the motor that propels our craft across the ocean of life.

Misspent health cannot be replaced any more than misspent money; be thrifty in keeping your health.

NONRESIDENTS CONTRIBUTE LARGELY TO THE INFANT DEATH RATE.

Statistics recently compiled place the infant mortality rate in the United States as slightly over ninety in every one thousand births.

In Boston, the infant mortality rate in 1922 was 92.71 per 1,000 births, and in the year previous it was 77.2, the latter rate being the lowest on record in the City of Boston.

In considering the infant mortality rate in Boston it is to be noted that Boston hospitals provide accommodations for many nonresidents; patients being attracted from all New England. To illustrate, in the year just closed, there were 293 nonresident deaths of infants under one year of age out of a total of 1,720 such infant deaths. This is 17 per cent of the total; and the year previous, 1921, the number was 284 or 20 per cent of the total infant deaths under one year of age.

It goes without saying that if these nonresident deaths were excluded from the infant death total, there would be a material reduction in the Boston rate. Of course we do not do this, but we do want to call attention to this large proportion of nonresident deaths, a proportion not approached by any large city in the country. Without such comment, the rate, 92.7, appears high, and, as a matter of bare statistics, looks serious, giving the erroneous impression that Boston has a relatively high infant death rate.

Boston has done fairly well, however, in improving its infant mortality rate, because only as far back as 1918 the number of deaths of infants under one year was 114.5.

As to reported ages of infant deaths, it may be stated that in 1922, there died in Boston 1,720 infants under one year of age; of this number 279 died before they were one day old, 366 died before they were two days old, 441 died before reaching the end of the third day, and a total of 592 or 35 per cent of the one year of age group died before one week elapsed.

As to reported causes of infant deaths, it may be stated that out of 1,720 infants that died, 262 died of broncho pneumonia, 191 of diarrhea and enteritis, 108 of congenital malformation of the heart, 373 of prematurity, and 183 of other causes in early infancy, showing the large number of deaths from principal causes suggestive of congenital weakness.

Decreases in infant mortality may be attributed to the pasteurization of milk, to an improved water supply, to better housing conditions as a result of improved methods of plumbing, and to the many agencies engaged in infant welfare, educational and welfare work among the parents. In these lines much progress has been

made. The percentage, however, of children that die under one year of age of congenital defects apparently will continue without material reduction until the health departments and other public agencies succeed in developing new generations able to produce a higher proportion of normal offspring than at present.

Boston compares favorably with other cities in the Commonwealth, and in many of the so-called "mill" and "factory" towns the rate exceeds Boston.

YEAR.	1922.	1921.	1920.	1919.	1918.
Total live births.....	18,552	19,397	19,494	18,781	20,063
Infant immortality.....	92.71	77.2	100.8	96.8	114.5
Total deaths under 1 year.....	1,720	1,499	1,966	1,818	2,298
Total nonresidents deaths under one year.....	293	284	328	394	436
Total deaths under 2 years.....	2,086	1,788	2,565	2,160	3,047
Total deaths under 5 years.....	2,394	2,077	2,773	2,531	3,760

TWO CAUSES OF MENTAL DISORDERS.

First, the great Italian, Bianchi, emphasizes among other things the stabilizing effect of work on the mind and deplores the prevailing conception that the fewer hours we have to work, the better off we are. He says: " * * * the result of the shortening of the hours of labor, instead of giving leisure for home duties and family life, is deteriorating character and mental health, as the free hours are devoted to loafing. Work, "the great stabilizer of the nervous system, is abhorred and shirked more and more — a sad perversion of the ideal aimed at in the early agitation for the eight-hour day."

The great French authority, Pierre Janet, declares that the present day society has another factor to contend with, which results in the breaking down of many minds and the resort to alcohol, drugs, etc. He says:

"I have already had occasion to point out in this connection a type of mental overwork that is typical of the age in which we live. The philosophic ideas in regard to the equality of man brought to a common level the ambitions of all classes. They have subjected all minds, no matter what the caliber, to efforts that our fathers never thought of making in the same manner. A dramatic author once said: Several generations are required to make a minister out of a janitor's son.

"If we could make the social struggle less severe; if we could check the desire to attain social position too rapidly, and if we could

discourage dangerous ambitions, could we not unite what now seems irreconcilable, freedom of thought and tranquility of beliefs? These are great questions and more closely linked to the problem of alcoholism, and also that of race suicide, than is commonly supposed."

The dictum that "All men are equal," a mistranslation of the "right of all men to an equal opportunity," on which our democracy is based leads many to strive to compete much beyond their mental and physical strength. The result of instilling this idea that all are equal to shouldering responsibility or reaching equal heights into the minds of those who are not stable, who are not gifted with the power to compete with their fellows, is that they are forced to the front and encouraged to take positions and responsibility they never should take. They fall by the wayside one after the other, some sooner, some later, and many of the patients today in the hospitals are the victims of this application of the democratic idea. They have believed that all men are equal mentally and physically, only to find too late that they have limitations which should have been recognized early in their lives. And here is another field for the properly educated nurse who has daily contact with the unstable child or adult; she should be able intelligently to size up their limitations, and at least in the case of the child, help him to avoid the fatal result of too great ambition, and later the assumption of too great responsibilities. (Dr. L. Vernon Briggs in "The Modern Hospital.")

Dr. William H. Devine, Director of Medical Inspection, Boston Public Schools, recently published in the "Boston Medical and Surgical Journal," an article on comparative statistics on physical examinations of pupils of the Boston public schools from December 1, 1915, to June 30, 1922.

The article in its entirety is splendidly interesting to those whose relation to public health activities brings them in contact with children of all classes. Especially is it interesting as a means of bringing to the knowledge of physicians, parents and educators the fact that as physical examination of all school children is required by Massachusetts law to be made annually, no child in the public schools is excused from this annual physical examination. This absolute enforcement of the law enables the parents or guardians of these children to be accurately informed of defects or disabilities found among the children thus examined; and since the examination is conducted by school physicians the examination is systematic, regular and uniform, as may be seen by the statistical compilation of results in the table included within the article.

The Health Department is pleased to have the opportunity of bringing the substance of the article to the attention of the readers of

its "Monthly Bulletin," and must express regret that the limit placed on the size of the Bulletin precludes the possibility of reproducing Doctor Devine's article completely. For that reason it is suggested that reference be had to the "Boston Medical and Surgical Journal," Volume 187, No. 22, pages 774-777, November 30, 1922, for the complete statement, which includes a statistical resume of physical examinations for employment certificates besides the table included in this reproduction.

"There is a law in Massachusetts requiring annual physical examinations of school children. . . . Since the writer has had charge of medical inspection in the Boston public schools, all have submitted to the annual examination; no child is excused.

The law requires that children shall be separately and carefully examined every school year, and a written notice of any defect or disability sent to the parent or guardian. In Boston, it is required to complete these physical examinations before December first. The wisdom of this rule is obvious — it admits of prompt and timely treatment. . . .

All children are weighed and measured at time of physical examination and record of weight and height is made on physical examination record card. Outside wraps, such as coats, sweaters, etc., are removed before weighing. Children from the kindergarten to the sixth grade, inclusive, are stripped to the waist for physical examination.

In addition to the regular routine examination, the school physician examines all children who require it as often as necessary.

Physical examination of girls in high, Latin, and Normal schools are made in the presence of the instructor of physical training, the teacher, or matron. Physical examinations of pupils assigned to open-air classes are made in September and re-examination in February. . . .

Special physical examination of candidates for the Normal school are made by the school physicians in January and June preceding graduation from high school. Report on each examination is sent to the Director of Medical Inspection. Applicants for admission to Normal School may be rejected for any of the following causes:

Communicable diseases, *e. g.*, tuberculosis.

Defective vision.

Defective hearing.

Epilepsy.

Chorea.

Chronic bronchitis or asthma.

Affections that are:

(a.) Unsightly, *e. g.*, chronic skin diseases.

(b.) Offensive in nature, *e. g.*, ozena and allied diseases.

Any disease or condition which the school physician certifies and deformities that would manifestly interfere with physical activity, are also causes for rejection. . . .

The number of cases of cardiac disease in the Boston public schools remains practically the same for the past six years. Naturally it would remain about the same or increase from year to year, as children are not excluded for this disease. The figures in the preceding report have been compiled from the examinations of forty-nine (49) school physicians, and the fact that these do not

vary to any great extent in the past six years is some evidence of the accuracy of the observations of the medical inspectors. . . .

About 2 per cent of the children in school populations are found to have some cardiac disorder. In the Boston public schools about 1.25 per cent organic and about 2 per cent functional.

For obvious reasons the causation is uncertain. Only by careful medical supervision and follow-up work can the etiology be traced with any degree of accuracy. Rheumatism, infectious diseases, defective teeth, tonsils, and other local conditions have assumed an important place in the etiology of cardiac lesions, although I believe the importance of the minor ailments in the causation of morbid conditions of the heart is exaggerated. . . .

The prevention of heart disease offers a great field in prophylaxis. The timely notification of parents is an important step in prevention procedure. There were many cases where school notification was the first intimation to parents that a child had cardiac disease. Its early detection in the schools; longer rest in bed after contagious diseases; the proper care of the teeth and removal of diseased tonsils and adenoids should tend to reduce the number of cases. . . .

The following is a quotation from the acts of 1908, chapter 181:

"In each of the subjects of physiology and hygiene special instruction . . . as to tuberculosis and its prevention, shall be taught as a regular branch of study to all pupils in all schools which are supported wholly or partly by public money."

The Director of Medical Inspection has reason to believe that that instruction has been conscientiously carried out in our schools. . . .

CLEANLINESS IN FOOD ESTABLISHMENTS.

The following circular is being distributed to food establishments in Boston:

To the Proprietors of Hotels, Restaurants, Cafeterias, Bakeshops, and Similar Establishments:

Section 3 of the regulation to procure the production, storage, delivery, offering for sale, sale and distribution of foods and beverages in a sanitary and healthful manner, adopted by the Health Commissioner under date of June 13, 1921, reads as follows:

"SECTION 3. That no person engaged in the business of producing, storing, delivering, offering for sale, selling or distributing any food or beverage shall produce, store, deliver, offer for sale, sell or distribute such food or beverage in an unclean or unwholesome manner."

This section is called particularly to your attention at this time with a view to urging upon you the necessity for extreme care in handling foods or beverages before distributing to consumers. I have specially in mind that foods should be served without contact by the hands of the person serving; also that the person serving should be very careful about the cleanliness of their hands, not to put the fingers into the ear, nose or mouth while engaged in serving food to

the public, and should not moisten the fingers with the mouth before picking up a napkin, paper bag, or the like, used in serving food to customers.

The Health Department has received repeated complaints from patrons of eating places as to the insanitary practices of waiters and waitresses in putting the fingers into ears, nose, mouth or hair while engaged in actual service of foods or beverages to such patrons.

Specific complaint has also been made of so dispensing soft drinks from a container that the beverage overflows the glass, washes down over the hand of the waiter holding the glass and runs back into the container again.

The department desires also to bring to your attention, in connection with the regulations to which you have been referred herein, that all cups, glasses, spoons, forks, knives or other eating or drinking utensils which have been used for eating or drinking must be thoroughly cleansed and sterilized by boiling water or otherwise after each such use before being again served for use by patrons. Running hot water should be on the premises for use when necessary.

No dry sweeping of floors or premises where food is stored, handled, exposed or served should be permitted by you or your supervisory employees; and before floors are swept they should be dampened with damp sawdust, or by the sprinkling of water to prevent dust from contaminating foods that are exposed to it. Care should also be taken not to sweep floors in those parts of your establishment where patrons are served, or where foods are exposed prior to service or use, until patrons are no longer present, or until foods exposed have been properly covered to prevent accumulations of dust thereon liable to contaminate them.

Flies, insects and vermin have no place in a clean establishment where food is offered to the public. By maintaining cleanliness in your establishment this nuisance, and often a source of danger, may be eliminated.

The Health Commissioner expects to receive the co-operation of the proprietors of the establishments to whom this letter is addressed, and to whose own interest it is to see that their employees engaged in the handling of food or beverages in any manner, refrain from the insanitary practices described in the foregoing.

FRANCIS X. MAHONEY,
Health Commissioner.

“He who helps a child, helps humanity with a distinctness which no other help given to human creatures can possibly give.”

—*Phillips Brooks.*

PHYSICIANS SHOULD REPORT DOG BITES.

Attention of physicians is called to the fact that although requirements of the state demand that all dog bite cases requiring antirabic treatment shall be reported to local boards of health, it is felt that as a matter of precaution and prevention physicians should report all dog bite cases instantly to the local board of health in order that the animal may be restrained pending an examination to determine whether or not the bitten person shall be given the antirabic treatment. The department stands ready and willing to examine immediately upon receipt of such notice from physicians all dogs that have been known to have bitten persons within the city limits.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of the March survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.43	3.63	54
Anderson, Oscar A.....	12.47	3.70	277
Antetomasso, Peter.....	12.37	3.57	14
Barden, R., Creamery Company.....	14.02	5.10	508
Barry, Michael F.....	12.29	3.60	52
Barrow, Fred G.....	12.29	3.63	16
Barron, Clarence W.....	14.45	5.10	19
Bemis, Henry G.....	12.26	3.56	44
Bergman, John H.....	13.01	4.01	98
Bolio, Mary.....	12.24	3.45	14
Bowditch, E. F., Estate.....	12.54	3.75	18
Brandley, T. J. & P. J.....	12.81	3.92	11
Brandon Farms Milk Company.....	12.93	4.35	55
Brookdale Creamery Company.....	12.40	3.71	327
Burns, James.....	12.47	3.80	159
Casey, J. D.....	12.54	3.78	883
Cashin, James F.....	12.06	3.50	27
Chapin, G. L.....	12.21	3.60	23
Childs Brothers.....	12.34	3.60	72

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Clark, Levi.....	12.32	3.65	140
Cohen, Benjamin.....	12.44	3.71	94
Corkery, John H.....	12.30	3.58	102
Creedon & Crowell.....	12.16	3.56	18
Cummings, F. S., Company.....	12.18	3.56	13
Cunningham, Paul.....	12.80	3.90	56
Cusick, William H.....	12.01	3.65	1,028
Deerfoot Farms Milk Company.....	12.59	3.83	12
Denehy, Timothy.....	12.70	3.92	25
DiMaura, Gaetano.....	12.44	3.65	14
Driscoll, W. B., Company.....	12.50	3.66	7
Edgerly, F. S.....	12.54	3.75	161
Elm Spring Farm Milk Company.....	12.26	3.63	37
English, John.....	12.66	4.12	40
Ferguson, Malcolm D.....	12.13	3.60	144
Gargulinski, Joseph.....	12.14	3.53	6
Garvin, Charles E.....	13.22	4.90	10
Giroux, J. E. & Co.....	12.31	3.60	31
Griffin, Joseph L.....	12.43	3.90	17
Griffin Brothers.....	12.32	3.70	460
Gushee, W. S. & C. W.....	12.54	3.70	23
Hagar, J. M. & Sons.....	12.60	3.70	47
Hancock, T. G., & Co.....	12.30	3.68	33
Herlihy Brothers.....	12.56	3.88	234
Hickey, Martin J.....	12.58	4.00	16
Holden, John E.....	12.54	3.80	61
Hood, H. P., & Sons, Inc.....	12.34	3.68	114
Hurley, M. F.....	12.24	3.68	125
Jones, W. T., & Co., Inc.....	12.66	3.85	21
Kendall Brothers.....	11.98	3.52	221
Kennedy, R. J., Jr.....	12.20	3.70	36
Kingston, Samuel.....	12.82	3.95	8
Klaw & Freeman.....	12.82	3.71	33
Knapp, George J.....	12.32	3.65	54
Lang, Michael.....	12.40	3.48	293
Larkin, Patrick.....	12.70	3.80	11
Larsoon, Charles.....	12.30	3.68	19
Lesser, Joseph.....	12.62	3.85	221
Lincoln Farms, Inc.....	13.54	5.00	355

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Lubin, Felix.....	12.58	3.88	20
Lyndonville Creamery Company.....	12.85	3.82	83
Magee, Nellie A.....	12.72	3.70	26
Manning, Peter E.....	12.42	3.85	111
Maple Farm Milk Company.....	12.18	3.55	211
McAdams, John F.....	12.42	3.63	62
McKernan, John.....	13.57	4.21	42
Moore, Peter.....	12.32	3.60	48
Morgan, George D., & Son.....	13.64	5.40	11
Munchbach, George.....	12.58	3.75	60
Nelson & Bennison.....	12.27	3.65	124
Newton & Pope.....	13.13	4.32	23
Noble, W. F., & Son.....	12.49	3.68	15
Plymouth Creamery System, Inc.....	12.56	3.83	32
Pond, Harvey T.....	12.83	4.01	189
Raycraft, Benjamin F.....	12.35	3.90	15
Robbins, F. E.....	12.37	3.70	15
Robinson, Alfred J.....	12.53	3.86	56
Robinson, James A.....	12.57	3.75	200
Runkle, John C.....	13.48	4.36	24
Schuster, Adam.....	12.70	3.75	80
Seven Oaks Dairy Company.....	12.43	3.66	49
Shick, Jacob.....	12.10	3.50	630
Smith & Lynch.....	12.20	3.61	46
Somerset Farms.....	13.26	4.30	12
Sterling Farm Milk Company.....	12.21	3.55	44
Stone, H. L.....	12.30	3.63	21
Stuart, Wallis E.....	12.52	3.75	6
Sullivan, John D.....	12.32	3.73	11
Sullivan, J. L.....	12.88	4.10	9
Turner Centre System, Inc.....	12.73	3.80	63
Upland Farms.....	14.42	4.90	263
Vartanian, Setrag.....	12.10	3.51	348
Walker-Gordon Laboratory.....	12.52	3.83	6
Ware, George H.....	12.50	3.86	24
Warren, Cornelia.....	13.34	4.40	8
Weiler, E., & Sons.....	12.59	3.95	63
Werner, Ferdinand Company.....	12.53	3.73	509
Westwood Farm Milk Company.....	12.54	3.60	37

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
White Brothers.....	12.72	4.00	114
Whiting Milk Companies.....	12.24	3.63	243
Whittemore, Warner D.....	12.32	3.72	16
Wiswall, Granville A.....	12.66	3.80	40
Wittenberg & Co.....	12.22	3.58	96

CHAIN STORE MILKS.

NAME OF DEALER.	Supplied By.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.34	3.66	402
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company.	12.80	4.13	25
The Cloverdale Company.....	Plymouth Creamery System, Inc.	12.46	3.80	40
Co-operative Grocery Company.	J. M. Hagar & Sons.....	12.41	3.66	26
Economy Grocery Company....	Plymouth Creamery System, Inc.	12.40	3.78	62
Morgan Brothers Company....	Whiting Milk Companies...	12.20	3.70	239
M. O'Keeffe, Inc.....	J. M. Hagar & Sons.....	12.14	3.60	64
Rose Tea Company.....	H. P. Hood & Sons, Inc....	12.53	3.73	112
Winer, M., Company.....	Winer, M., Company.....	12.54	3.65	227

BREAST FEEDING A LIFE PRESERVER.

The importance of breast feeding cannot be too strongly emphasized, and the cooperation of physicians, nurses, and mothers must be solicited if we are to reduce the number of infants that die each year.

It has been found after careful study by this department and other agencies interested in baby welfare that the infant's chances of living who is breast fed is from four to eight times as great as the infant that is bottle fed.

Breast feeding is the natural way to feed the infant. Why substitute another means unless you are absolutely obliged to?

Plants cannot live and thrive without fresh air and sunshine. Neither can you.

PREVENTION OF DECAY OF TEETH.*

Food often sticks to the teeth after eating. It then ferments and forms lactic acid which acts upon the teeth, causing them to decay.

If food can be prevented from sticking to the teeth there will be little or no decay.

To prevent decay you should observe the following rules:

(1.) As soon as an infant needs food other than milk (8-9 months) give it in a solid hard form requiring mastication, such as crusty bread, twice baked bread, or crisp toast. In this way good teeth are likely to grow and good habits of mastication will be formed. Never give bread soaked in milk, or flour added to milk, or other soft starchy foods (such as most patent food).

(2.) As the child grows up you should still give most of the food in a hard form, compelling mastication. Food should rarely be taken in a liquid form, or soaked in liquid or minced. Bread should not be eaten new, and it should have plenty of good firm crust.

(3.) Drinking between each mouthful is very injurious. Liquids should only be taken at the end of a meal or between meals.

(4.) Sweets should never be taken between meals, nor the last food in a meal; but only along with food requiring mastication.

(5.) A meal should always be finished with a cleansing food (see below). It is very desirable that fresh fruit should be eaten freely, particularly at the end of a meal. This is most important with regard to the last meal of the day.

(6.) Mouth breathing in children should always be corrected, and if obstinate, medical advice should be obtained.

Examples of Foods.

Starchy Foods.—Bread, biscuits, etc.; †potatoes; rice, tapioca, sago, etc.; oatmeal porridge, and similar foods; patent foods.

Sugary Foods.—All foods to which sugar is added; sweets of all kinds; honey; milk; jams; marmalades; patent foods.

Cleansing Foods.—Fresh fruits, particularly apple, nuts; raw vegetables — celery, radishes, lettuce, onions, carrots, etc.; ‡crusts of bread, crisp toast, twice baked bread; meat, fish, bacon.

JAMES WHEATLEY, M. D.,
County Medical Officer of Health and
School Medical Officer.

SHREWSBURY, ENGLAND.

* Selected for use in the clinic of the Preventive Dentistry and Oral Hygiene Department, Harvard Dental School.

† Potatoes are a much better food if cooked and eaten with their skins.

‡ The coarse whole meal flours are better for this purpose.

SUMMARY OF THE WORK, MARCH, 1923.

BUREAU OF ADMINISTRATION.

	Mar.	Feb.		Mar.	Feb.
Conferences	0	6	Culture stations ap-		
Hearings (stable)	0	2	proved	1	0
Prosecutions ordered . . .	13	9	Special drafts	1	0
Undertaker's application			Personnel:		
approved	1	0	Appointments	12	4
Dump applications:			Permanent	0	0
Approved	5	3	Provisional	1	0
Lying-in hospitals ap-			Probationary	0	2
proved	3	3	Temporary	1	1
Offensive trades ap-			Discontinued	0	2
proved	2	0	Temporary exten-		
Disapproved	1	0	sion	10	1
Vacate notices	3	0	Reinstatement	0	1
Legal notices	199	156	Resignations	2	0
Day nurseries approved . .	3	3	Leaves of absence	0	1
Cemetery approved	1	0	Forcible removals	1	2
Antitoxin station ap-			Regulations adopted . . .	1	0
proved	1	0			

LICENSES, PERMITS, ETC., ISSUED.

	Mar.	Feb.		Mar.	Feb.
Burial permits	0	1,419	Denatured alcohol li-		
Disinterment permits . . .	0	4	censes	1	2
Milk licenses	1,035	126	Manicure-massage:		
Peddlers' licenses, gen-			Granted	24	22
eral	64	28	Grease	26	3
Hen licenses granted	864	0	Dumps	6	3
Stable permits granted			Day nursery	6	1
conditionally	1	3	Garbage transportation . .	0	6
Special milk license	0	1			

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Mar.	Feb.		Mar.	Feb.
Visits by medical inspec-			Vaccination certificates . .	9	2
tors	2,194	1,335	Cases brought to Boston		
Deaths investigated	30	13	for treatment	154	113
Vaccination	21	2	Antitoxin administered . .	62	13

NURSING SERVICE.

	Mar.	Feb.
Communicable disease visits	5,452	4,435
Babies visited, first visit	997	708
Revisits	1,517	1,414

HEALTH UNIT (Blossom Street).

	Mar.	Feb.
Health Department proper:		
Vaccinations	18	14
Vaccination certificates issued	4	8
Antitoxin injections	0	17

	Mar.	Feb.
Dental clinic:		
Number of treatments	2,187	1,245
Number of dismissals	290	65
Schick tests	10	154
Number of readings	9	97
Toxin-antitoxin administered	18	31
Cases visited by nurses:		
Medical	219	290
Complaints of unsanitary conditions	23	24
Visitors:		
Resident	7	4
Nonresident	2	5
General:		
Persons applying for information	320	289
Community Health Association:		
(a.) Baby Hygiene Association:		
New babies admitted	20	10
Homes visited by nurses	435	524
Conferences:		
Number held	5	3
Attendance	169	126
(b.) Instructive District Nursing Association:		
Visits made by nurses	2,199	1,765
Boston Dispensary:		
Calls by district physician	108	123
Boston Sanatorium:		
Calls by nurses in district	808	831
Jewish Welfare Center:		
Nutrition conferences:		
Number	*	4
Attendance	*	80
Nutrition classes:		
Number	*	4
Attendance	*	50

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Mar.	Feb.
New reports	3,168	2,864
Stores inspected	4,097	3,791
Sanitary defects remedied	170	159
Complaints at office	46	28
Referred to Sanitary Division	32	17
Milk applications approved	60	19
Street stands inspected	0	3
Peddlers:		
Applications for licenses approved	61	27
Vehicles inspected and approved	365	429
Court cases	2	6
Fines	0	†

* Figures not available.

† Defaulted, \$6.

		Mar.	Feb.
Laboratory Examinations:			
Bacteriological		3	0
Chemical		1	8

CONDEMNATIONS.

WITHOUT REQUEST.

Beef stew	2 jars	Lamb stew	2 jars
Boiled dinner	3 jars	Lamb and peas	2 jars
Canned goods, miscellaneous	50 cans	Marshmallow	200 pounds
Chickens	5½ pounds	Nut meats	330 pounds
Chicken broth	3 jars	Oysters	1 gallon
Chicken fricassee	5 jars	Pork shoulder	25 pounds
Chicken (large)	3 jars	Poultry	1,729 pounds
Chicken (roasted)	3 jars	Salmon	435 cans
Chicken	1 jar	Shell beans	3 jars
Clam chowder	3 jars	Smelts	250 pounds
Chocolates	300 pounds	Spinach	2 cans
Hamburg steak	4 pounds	Sugar wafers	56 pounds
Lamb and veal	75 pounds	Tomatoes	2 cans

LIVE STOCK INSPECTION (Brighton Abattoir).

		Mar.	Feb.			Mar.	Feb.
Cattle inspected		14	17	Swine inspected		5,456	5,443
Calves inspected		5,352	2,874	Parts condemned		181	174
Sheep		6	16	Animals condemned		20	10

DAIRY DIVISION.

		Mar.	Feb.			Mar.	Feb.
Total inspections		662	728	With milk rooms		138	175
Dairies inspected		217	253	Without milk rooms		79	78
Scoring above 50 *		145	200	Inactive		17	19
Scoring below		72	53	Total cattle inspected		2,045	3,283

* Passable mark.

BUREAU OF MILK INSPECTION.

		Mar.	Feb.			Mar.	Feb.
Chemical inspection of:				Bacteriological examination of:			
Milk		1,628	1,142	Milk		638	408
Ice cream		0	1	Court cases		11	21
Vinegar		64	0	Fines		\$255	\$395
Miscellaneous		6	11				

SANITARY INSPECTION.

		Mar.	Feb.			Mar.	Feb.
Original inspections		1,964	1,237	Vacate notices served		2	2
New reports		3,069	2,135	Complaints		850	790
Reinspections		5,633	4,841	Court cases		10	12
Legal notices served		202	163	Fines		\$90	\$20

BACTERIOLOGICAL LABORATORY.

Mar. Feb.

Examinations for diagnosis and release:

Diphtheria	1,734	1,552
Tuberculosis	1,273	260
Typhoid	34	23
Gonorrhea	592	514
Gonorrheal Ophthalmia	38	33
Syphilis	1,128	957
Other examinations	33	15
Bacteriological examinations of milk	638	408
Examination of rats	—	178
Special K. L. examinations	573	522
Special virulence tests	13	0

Malaria, 5; G. U. T. B., 5; dog for rabies, 1; dark field examination, 2; cat for rabies, 2; virulence tests, 1; feces for typhoid, 1; tomato paste for poison, 1; paratyphoids, 10; cat for rabies, 2; tea for poison, 1; blood for Felix Weintrest, 1; beef for poison, 1; urine for typhoid, 1; pus from tonsil for T. B., 1.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING MARCH, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	12	20.69
Seven days or less.....	2	3.45
Eight to fourteen days, inclusive.....	3	5.17
Fifteen to twenty-one days, inclusive.....	1	1.72
Twenty-two to thirty-one days, inclusive.....	3	5.17
WITHIN FIRST MONTH.....	21	36.20
Within second month.....	5	8.62
Within third month.....	—	—
Within fourth month.....	1	1.72
Within fifth month.....	4	6.90
Within sixth month.....	2	3.45
Within seventh month.....	2	3.45
Within eighth month.....	2	3.45
Within ninth month.....	—	—
Within tenth month.....	1	1.72
Within eleventh month.....	—	—
Within twelfth month.....	1	1.72
WITHIN FIRST YEAR PRECEDING DEATH.....	39	67.23
Within second year.....	4	6.90
Within third year.....	6	10.34
More than three years.....	9	15.51
Totals.....	58	99.98

VITAL STATISTICS, MARCH, 1923.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING MARCH, 1923, WITH COMPARATIVE FIGURES FOR MARCH, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	1,216	1,187	+29	18.94	18.64	— .30
Nonresidents deducted.....	1,036	992	+44	16.13	15.58	+ .55
BY AGE:						
Under one year.....	167	192	—25	2.60	3.02	— .42
One year to four years, inclusive.....	86	66	+20	1.34	1.04	+ .30
Sixty years and over.....	474	452	+22	7.38	8.00	— .62
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy.....	63	61	+2	.98	.96	+ .02
Arterio-sclerosis.....	53	46	+7	.82	.72	+ .10
Heart disease.....	185	205	—20	2.88	3.22	— .34
Nephritis, chronic.....	67	78	—11	1.04	1.22	— .18
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,751	1,685	—66	27.27	26.46	+ .81
b. Registered stillbirths.....	48	55	—7	.75	.86	— .11
Stillbirths per 1,000 births and stillbirths.....				26.68	31.61	—4.93
c. Deaths of mothers from causes incident to childbirth.....	15	11	+4	.23	.17	+ .06
Deaths of mothers per 1,000 births and stillbirths.....				8.34	6.32	+2.02
d. Deaths of children in first year of life...	167	192	—25	2.60	3.02	— .42
Deaths in first year per 1,000 live births.....				95.37	113.94	—18.57
VIOLENCE:						
Accidents.....	45	46	—1	.70	.72	— .02
Homicides.....	3	2	+1	.05	.03	+ .02
Suicides.....	12	8	+4	.19	.12	+ .07
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	18	11	+7	.28	.17	+ .11
Broncho-pneumonia.....	108	94	+14	1.68	1.48	+ .20
Cancer.....	106	103	—2	1.65	1.70	— .05
Cirrhosis of the liver.....	4	6	—2	.06	.09	— .03
Diabetes mellitus.....	26	25	+1	.40	.39	+ .01
Diarrhoeal diseases, children under two years of age.....	8	16	—8	.12	.25	— .13

REPORTABLE ILLNESS AND DEATHS IN BOSTON, MARCH, 1923. — Concluded.

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
		1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:							
Anterior poliomyelitis.....	Cases...	—	1	—1	—	.016	— .016
	Deaths..	—	—	—	—	—	—
Cerebro-spinal meningitis.....	Cases...	4	1	+3	.06	.016	+ .04
	Deaths..	1	—	+1	.015	—	+ .015
Diphtheria.....	Cases...	296	275	+21	4.61	4.35	+ .26
	Deaths..	18	7	+11	.28	.11	+ .17
Influenza.....	Cases...	54	329	—275	.84	5.22	—4.38
	Deaths..	24	18	+6	.37	.28	+ .09
Measles.....	Cases...	539	668	—129	8.39	10.58	—2.19
	Deaths..	11	2	+9	.17	.02	+ .15
Pneumonia (lobar).....	Cases...	169	228	—59	2.63	3.58	— .95
	Deaths..	80	117	—37	1.25	1.83	— .58
Scarlet fever.....	Cases...	388	222	+166	1.04	3.49	+2.55
	Deaths..	13	3	+10	.20	.05	+ .15
Tuberculosis (pulmonary).....	Cases...	128	212	—84	1.99	3.32	—1.33
	Deaths..	63	63	—	.98	.99	— .01
Tuberculosis (other forms).....	Cases...	25	40	—15	.39	.63	— .24
	Deaths..	12	12	—	.19	.19	—
Typhoid fever.....	Cases...	6	3	+3	.09	.05	+ .04
	Deaths..	—	—	—	—	—	—
Whooping cough.....	Cases...	448	54	+394	6.98	.85	+6.13
	Deaths..	23	4	+19	.35	.06	+ .29

This table includes all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

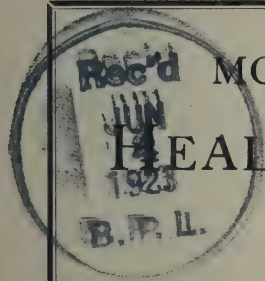
All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated populations for July, 1923, and 1922, based upon the federal census of 1920, have been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.



MONTHLY BULLETIN HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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No. 4

PURE WATER ESSENTIAL TO GOOD HEALTH.

Water is a necessary article of diet. It goes largely to make up what constitutes our food, and we must have it in order to live. Life cannot exist without it, and, in addition, it is essential for the proper cleanliness of persons, equipment, utensils and other things that form a part of industry and business.

At home in the city we are most careful that we have pure water for drinking purposes, and laws have been put on the statute books protecting the water supply for our people. Our legislators, acting on the advice of health agencies, have even forbidden the use of the common drinking utensil. Everything is done to safeguard our health at home. And all this is commendable, because diseases which gain entrance into the body through the mouth are in most instances due to drinking water, and it is well that we are careful about what we drink and where we drink.

How strangely lax we suddenly become when we leave our homes and use water from sources that are unknown to us, and perhaps even when such sources might from observation be seen to be unsafe. The common fallacy seems to be that the deep, dark water in wells,

or running in brooks, or bubbling and running unprotected in springs, is the elixir of life, and we thus allow ourselves to be fascinated by unsafe, unknown and unprotected water. Countryside drinking water has been the subject of poetry and fiction which stimulates our imagination. We walk long distances, and often, to partake of water of doubtful origin. Whereas at home we are loath to bother about drinking water, in the country a mile seems only to whet our appetites for spring water and well water. We abandon our good judgment, throw caution to the winds, and proceed to forget the precautions which are taken in the city for our protection and safety.

Polluted water away from home, in the country, at the seashore, and on shipboard, is likely to contain disease-bearing bacteria from diseased human beings or animals, and such water will convey disease if taken into the stomachs of susceptible persons. Besides the ordinary digestive disturbances and diarrhea that such waters cause, typhoid fever is often brought home from the country by vacationists. Rain water, ground water, and surface water all become polluted by coming in contact with articles that convey pathogenic bacteria.

Unless you are sure of the water you drink it is safer and best to refrain from drinking from any and every source that we meet, even though the water that is cool, bubbling and sparkling appeals to your appetite. Disease may lurk in every bubble and every dipper or glass of what you drink. Do not be deceived because you see no particles of dirt in the water. The bugs that do the damage cannot be seen by the naked eye, and are visible only under the microscope. Clear water is not necessarily safe water, in fact turbid water that may have an odd taste may be safer. If you cannot be sure that water is safe from possible contamination, boil it before you drink it. Boston's typhoid death rate has been steadily decreasing, but cases of the disease continue to be reported in the city in numbers that are entirely too large. From medical histories of such patients it appears that most of our local typhoid fever is imported — it comes from outside the city — imported by people who have been working, traveling, or residing in other communities. Each of us should be careful when away from the safe metropolitan water supply. Be on your guard against the unsafe water. Be sure you know when in the country that the water you drink is protected and safe, for oftentimes the agents of disease and death lurk in the supposed "health-giving waters."

He who cures disease renders a great service, but he who prevents it, a greater.

THE FLY MENACE.

The breeding of flies begins just as soon as the weather begins to become consistently warm, and keeps up throughout the spring and summer months and autumn just so long as warm weather continues. The multiplication of the fly is so rapid and frequent during the warm weather that from the breeding time the possible offspring of the fly number in one breeding season, not in millions, but trillions. The propagation possibilities of a single fly is sufficiently alarming to impress on the minds of every individual in a community the necessity as a preventive measure of killing off all flies wherever found, and to take other steps to prevent the increase in this insidious insect population by eliminating all sources of food supply and breeding spots.

The manure pile is the chief source of origin of the fly, but the fly will breed in any kind of filth and thrive on it. Garbage receptacles and lockers, privy-vaults, sewer drains, accumulated rubbish, all offer a refuge for the fly, and aids to multiplication should be eliminated by keeping garbage receptacles and lockers covered and clean, by disinfection of privy-vaults and drains, and by cleaning up all accumulated rubbish. If garbage during the warm weather is not collected often, to prevent decomposition and uncleanness, burn or bury it and then thoroughly clean the receptacle with lime, and if possible screen the receptacle to prevent access to it by flies.

After the fly has hatched out in its most usual breeding place, the manure pile, it may remain close to the food supply of filth in which it bred but it is likely to be attracted to the kitchen by odors of cooking or exposed foods. During the course of its migration from its disagreeable waste pile refuge to the kitchen the fly is not mindful of its cleanliness or its danger to those with whom it comes into contact directly or indirectly. It tracks the filth over the food and contaminates it. It leaves its mark, the bacteria laden fly speck, on the walls and ceilings of the house. It disturbs the sleeper. But far worse, it spreads the germs of typhoid fever, of dysentery, and of other diseases, including tuberculosis.

The sleeping infant in the crib should be protected against flies by mosquito netting screening around the crib. The fly is an important factor in spreading organisms which cause infantile diarrhea, and the baby should not be exposed to this danger.

While it is not to be forgotten that the destruction of the mid-summer fly is advantageous in that each dead fly thus diminishes the number that may later originate to carry on their work of destruction and germ-spreading, the best time to undertake a concerted campaign of eradication and prevention is during the early breeding season. Attention should therefore be directed toward all possible breeding

spots in the early summer, cleaning up accumulated piles of rubbish, cleaning and disinfecting garbage receptacles, drains and the like,—with a view to minimizing the number of these dangerous insects and their danger.

Screen or cover all food so that flies may not reach and contaminate it; screen the windows, and doors leading to the outer air that are kept open during warm weather, so that flies which may have hatched outside may not enter the house, because once within the house it is hard to get them out. Keep a fly swatter of some kind handy for use when you see a fly in the house; and if a large number of flies are in the house spread some nonpoisonous fly-paper around where it will do the most good for you and harm to the flies.

Stable manure should be placed in a tight metal container and the contents removed frequently, not less often than once a week. Privy-vaults, where permitted, should be regularly and frequently treated with lime or kerosene to reduce the extent to which the contents of such vaults serve as breeding spots for flies and furnish the flies with deadly, filthy food, and enable them to saturate their feet with germs which they track over food, or on the bodies of human beings and leaves behind them a wake of deadly diseases. Make it impossible for these flies to breed and later pursue a course of destruction inimical to human beings.

Clean up everywhere, do not allow rubbish or refuse of any kind to accumulate on your premises, burn the garbage if it is not taken away regularly or as often as you think best in warm weather, screen the windows and doors, protect the baby's crib with mosquito netting, cover all food, and use nonpoisonous fly-paper, or fly swatters inside the house to kill flies that get in. Don't let mother be the chief campaigner and all the members of the committee; give her some help, and the reward is universal.

ONE YEAR OF SCHICK WORK.

Subjects for the administration of Schick test and toxin-anti-toxin immunization for the control of diphtheria were obtained from available private institutions in the city and the parochial schools. The Health Department does not exercise supervision over children in the public schools inasmuch as the School Committee has for this purpose a director of school medical inspection under whose direction the school physicians and nurses look after the health of the children. For this reason, when the Boston Health Department first inaugurated its campaign for the control of diphtheria by means of the Schick toxin-antitoxin immunization procedure, on May 6, 1922, a start was not made, as ordinarily might be expected, in the public schools.

The value of the test and of the immunization were minutely explained at conferences held in the various institutions and parochial schools, literature on the subject was distributed, and consent slips given to parents before the work was actually started.

The number of tests made originally was small but there has been a very gratifying increase since the beginning was made. A completed series of finished cases show the following figures: Tests, 30,233; readings, 28,167; positives, 14,267; negatives, 13,900. To the positive reactors there have been given 12,915 first injections of toxin-antitoxin; 11,649 second injections and 10,819 third injections. Nearly 76 per cent of the positive reactors have received the triple injections of the toxin-antitoxin mixture, which is the usual number given to produce complete immunity.

Re-Schicking is done six months after the date of the giving of the first vaccine. A summary of the re-Schick tests to date shows the following figures: Re-tests, 6,947; readings, 6,555; positives, 877; with a total immunity produced by active immunization of toxin-antitoxin six months after the first injection of 86.5 per cent.

The young children of pre-school age are usually very susceptible to diphtheria and should be given the protective vaccination without any preliminary test. The major portion of the time spent in this new activity of the Health Department has been spent in an endeavor to establish the Schick toxin-antitoxin method in the control of diphtheria, and it is through the school children that efforts have been directed to acquaint the parents with the efficiency of the test. Much time has also been spent instructing physicians and local boards of health so that very little opportunity has presented itself for the immunization of children of pre-school age. In spite of the attention paid to children of school age in connection with the Schick test, it has been possible to date to give to children of pre-school age 318 first injections of the toxin-antitoxin, 259 second injections and 232 third injections.

The following table shows comprehensively what has been done with respect to Schick toxin-antitoxin immunization to date:

Tests	37,180	Negative	14,423
Read	34,722	Toxin-antitoxin injections:	
Positive	13,451	First	13,951
Positive combined	1,693	Second	12,412
Pseudo	5,155	Third	11,326

Much success has been met in the administration of this new preventive vaccine against diphtheria. Complete and detailed card records are kept of all children upon whom the Schick test has been

performed. These records will serve very valuable purposes from an epidemiological standpoint as well as statistically. Each record shows the child's personal history as to exposure to or infection with diphtheria previously, the symptoms developing as a result of the administration of the test, the result of the test and the toxin-antitoxin immunization, and finally the re-Schicking and readministration of the immunizing toxin-antitoxin injections to final immunity. The proved success of the test augurs well for its continuance.

FIRST ANNUAL REPORT, SCHICK TOXIN-ANTITOXIN ACTIVITIES — BOSTON HEALTH DEPARTMENT,
MAY 6, 1922 — MAY 6, 1923.

	Schick Tests.	Readings.	Positive.	Positive Combined.	Pseudo.	Negative.	TOXIN-ANTITOXIN INJECTIONS.		
							First.	Second.	Third.
Completed cases	30,233	28,167	12,656	1,611	4,087	9,813	12,915	11,649	10,819
Re-Schicks	6,947	6,555	795	82	1,068	4,610	716	503	275
Pre-school age							318	259	232
Grand totals	37,180	34,722	13,451	1,693	5,155	14,423	13,951	12,412	11,326

General immunity produced on re-Schicking to date, 86.5 per cent.

A group of 5,773 children recently re-Schicked shows the following percentage of immunity produced after first, second and third injections of toxin-antitoxin:

Immunity produced after first injection, 35.8 per cent.
Immunity produced after second injection, 65.8 per cent.
Immunity produced after third injection, 87.7 per cent.

CULTURES.

	Number.	Positive.	Negative.	Percentage.
Cultures of positive Schick re-actors before toxin-antitoxin	1,663	103	1,560	6.5*
Cultures of negative Schick re-actors	1,000	57	943	5.7*
Cultures of positive Schick re-actors six months after toxin-antitoxin	1,347	36	1,311	2.7*
Totals	4,010	196	3,814	4.96*

* Positive.

Diphtheria cases investigated from December 1, 1922, to date, 1,264.

Dirty methods in the dairy mean dangerous milk in the home.
Cleanliness counts.

BULLETIN OF THE BOSTON TUBERCULOSIS ASSOCIATION.

This is No. 1 of a series of Monthly Bulletins to be sent to the medical profession of Boston by the Boston Tuberculosis Association on the subject of the diagnosis, treatment and other matters connected with the tuberculosis problem. Other subjects to be taken up will include:

2. Facilities for the Hospital Treatment of Consumptives in the City of Boston.
3. Dispensaries for the Diagnosis and Treatment of Tuberculosis in the City of Boston.
4. Diagnosis and Treatment of Tuberculosis in Childhood.
5. Nontuberculous Lung Diseases Simulating Tuberculosis.
6. Sunlight Treatment and its Uses.
7. Nonpulmonary Tuberculosis and its Treatment.
8. General Principles on the Home Treatment of Tuberculosis.
9. Tuberculosis in Industry.
10. Outline of the Campaign Against Tuberculosis in the City of Boston.
11. Mycotic Infections of the Lungs Simulating Tuberculosis.
12. Chronic Bronchitis and Pulmonary Infections other than Tuberculosis.
13. Prodromal Symptoms of Tuberculosis.

SIGNS AND SYMPTOMS OF PULMONARY TUBERCULOSIS.

JOHN B. HAWES, 2d, M. D.

The diagnosis of tuberculosis in its incipient stages still remains one of the most difficult and yet one of the most important problems in medicine. Although tremendous advances have been made during the past decade in this respect there is still room for much improvement. Dr. Lawrason Brown of Saranac Lake has rendered a distinct service in formulating his "Five Points in the Diagnosis of Pulmonary Tuberculosis." According to Doctor Brown, with one exception, at least two of those points are necessary before a positive diagnosis can be made. These points are as follows:

1. Tubercle bacilli in the sputum.
2. Persistent rales at one apex.
3. X-ray showing involvement of the lung over the same area.
4. Hemorrhage of at least a teaspoonful of clear blood.
5. Pleurisy with effusion.

1. The first point speaks for itself. If the sputum is positive the diagnosis at least is clear enough although the degree of involvement and the activity of the disease still remains in doubt.

2. *Persistent rales at one apex is important.*—The patient in every instance should be instructed how to cough and to take a breath immediately after coughing. Muscle sounds and motor joint crackles should be considered as possible sources of error and should be ruled out in every instance. The exact quality of any rale is not so important as the fact that they persist and that they are located at one or both apices and persist after cough. French observers have called our attention to cases of persistent nose and throat infections associated with moisture in the shape of rales at an apex. Such cases although rare undoubtedly do exist and furnish an occasional source of error.

3. *X-ray evidence of lung involvement in the area where the rales are found* needs little or no comment except that the X-ray should be interpreted by one qualified to do this.

4. *Hemorrhage of at least a teaspoonful of clear blood.*—The presence of blood in the sputum or the spitting up of blood, no matter how small the amounts, calls for careful investigation as to its source, but it does not necessarily mean tuberculosis. The spitting up of a teaspoonful of clear blood, however, should be considered as a sign of pulmonary tuberculosis until the contrary is proved.

5. *Pleurisy with effusion.*—Dr. David Stewart of Manitoba coined the wise remark that before influenza pleurisy with effusion meant tuberculosis but now pleurisy with effusion was pleurisy with effusion. This remark should be borne in mind and yet of still greater importance is the need of remembering that although since influenza cases of pleurisy with effusion of nontuberculosis origin have been far more frequent than ever before the fact still remains that an idiopathic pleurisy with effusion should be looked upon as a manifestation of tuberculosis.

It is well for every physician to know these five points which Doctor Brown has placed before us and to demand that two of them, with the exception of the first one, which by itself is sufficient, be present before the diagnosis of tuberculosis is made.

Constitutional signs and symptoms: Temperature and pulse.—The temperature and pulse taken at a doctor's office are of comparatively little value. At every instance before deciding that a given patient is running a fever or a rapid pulse there should be observations taken quietly at home at least four times daily over a period of four or five days. If the patient, after this is done, is found to run a temperature which exceeds 99 at night the greater part of the time and a pulse running 10 or 15 points above what is normal, these two signs should be regarded as important evidence in the diagnosis of tuberculosis. While we know the normal temperature, the normal pulse for a given individual is not so easily determined. As a general rule,

however, we look upon a normal pulse for a man as one not exceeding 80 and that for a woman five or ten points higher.

Loss of weight and strength.—Loss of strength is a vague and intangible subject at the best. Some patients if questioned carefully and earnestly on this subject will be able to give fairly definite information as to whether or not they are more tired out after the day's work is done than they used to be and as to whether or not exertion of any kind has become an unusual effort. Loss of weight is a more definite one. The important points to find out in this are, first, the patient's normal weight and, second, over how long a period the loss had occurred, and third, as to whether or not the loss was an intentional one brought about particularly in women patients intentionally in order to reduce.

Miscellaneous symptoms.—Cough may or may not be present. There is no characteristic kind of cough. The same may be said concerning sputum. Each should be inquired after carefully. Sweats and other vaso-motor disturbances are rarely early signs. Digestive disturbances of all kinds are extremely common. A large percentage of patients, in fact up to 30–40 per cent, consult their doctor first on account of indigestion and dyspepsia. While with one exception the points which have been considered, though taken by themselves, do not necessarily mean that the patient has tuberculosis, if two or more are present, tuberculosis should be gravely suspected.

CARING FOR THE BABY.

In another portion of this bulletin reference has been made to the danger from flies as a means of spreading infantile diarrhea. While it is important to urge the mother to keep flies away from the baby, care should also be taken during the warm weather to keep the baby cool and comfortable.

Irritation of the skin of the baby may not be attributable to the heat alone. It is possible that the diapers are not changed often enough to insure comfort to the baby and to keep his skin free from irritation. Unclean or infrequently removed diapers always cause skin irritation but especially in warm weather.

It is very essential to keep the baby cool during the warm weather. He will sleep better and feel better. The ideal place, of course, is in the open air in the shade where the sun will not directly strike the baby. It may also be that the baby will sleep and rest more comfortably in a cool room with blinds closed than in the open air, although the latter is preferable. The mother can usually tell whether the baby rests to better advantage in the open air or in a cool room protected from the sunshine. At any rate care should be

taken to see that the air in the room is kept in motion to keep the baby as cool as possible. If you can afford it, use an electric fan for this purpose.

Light clothing should be the apparel of the baby during the hot weather; and the less clothing the better. Do not use rubber diapers as they retain heat and prevent evaporation and thus cause skin irritation.

Bathe the baby frequently. Use tepid water and cleanse the skin thoroughly but avoid excessive use of soap. Dry thoroughly so as to prevent irritation of clothing, a clean supply of which should be put on after bathing.

Too much stress cannot be laid on the advisability of breast feeding for the infant. It is good at all times, but especially beneficial during hot weather as a preventive against summer diarrhea. The attractively illustrated appeals of dispensers of commercial infant food may excite in the mother the desire to have her baby measure up to the healthful condition which these appeals attribute to feeding other than by the natural way; but it should not be forgotten that the natural way to feed the baby is the best way, or else nature would never have provided it. Proper sense of responsibility to their little ones should always cause the mother to decide in favor of breast feeding at all times as against other means of feeding. A stronger, healthier, better baby will be the reward, after the weaning time.

HIGH BACTERIA CONTENT IN ICE CREAM.

During the past few weeks the special attention of the Food Division has been drawn to the fact that many dealers in ice cream are selling a product containing excessive bacteria. Conditions may arise from several sources. The first possible source of contamination that suggests itself is that the ice cream ingredients are not sufficiently pure. The alternative is that the ingredients being satisfactory, it is either manufactured or handled under improper conditions as to operators and utensils.

It has been found in many of the places complained of that the cream delivered to the manufacturer was found on test to have contained an exceedingly high amount of bacteria. The same fault was found with cream that was left at the manufactory and not sufficiently iced there. Another source of high bacteria count is the employment of gelatine of a cheap grade used in the manufacture of the "compo." All manufacturers should use every effort to obtain a gelatine as sterile as possible.

Ice cream as delivered from the manufacturers to the stores is

ordinarily delivered in five-gallon cans, and it has been the custom of the dealers to turn the fresh ice cream into cans containing small quantities of old, unsold ice cream. This insanitary custom results in a high bacteria count. To remedy this condition a suggestion is made by one of the food inspectors having a long experience in ice cream manufacture that in all stores handling ice cream a shield should be installed in the ice cream chest to receive cans. The purpose of the shield is to make it easy to take out the old can. Then, the old can could be readily removed. In order to use up the left-over ice cream a space (about one gallon content) should be left at the top of the incoming five gallon can, which could then be utilized for this purpose. By the use of this shield, "anchor ice" would be prevented from forming, and all danger of contamination while turning one can into another would be obviated. Another advantage of this practice would be that the old can could be returned at short intervals to the manufacturer for proper sterilization. This, of course, would necessitate the manufacturer installing proper equipment to meet the situation. Many manufacturers are now in a position to do this.

HEALTH HINTS FOR ALL.

Open windows in the sleeping rooms. Proper and sufficient ventilation in every room in the house will keep your body well supplied with life-giving fresh air.

Do you walk to work if it is possible for you to do so? You should, if you can. Why? It tones up the system, and keeps you healthy and happy, and renders you less susceptible to dangers from exposure to severe weather.

If your throat is sore, consult a physician immediately. It may be the forerunner of diphtheria or scarlet fever.

Keep the mouth and teeth in clean condition. Consult the dentist frequently in any event, and always when necessary.

A sponge bath of the entire body daily is beneficial.

A thorough bath should be given the entire body at least once a week.

Eyeglasses properly adjusted to the condition of eyes that have been weakened by strain are essential to good eyesight. Do not neglect your sight by using your eyes for reading in poor light or by straining them.

If you are a sedentary worker be sure that you get a reasonable amount of sane exercise each day, preferably in the open air.

Breathe deeply; sleep regularly; eat and drink moderately and wisely.

INFANT MORTALITY COMPARISONS.

	Population (Estimated, 1922).	Total Live Births.	Birth Rate.	Percentage of Total Births Reported.	Total Deaths, All Causes.	Death Rate, All Causes.	Total Deaths, Children Under One Year.	Infant Mortality Rate.	Number Deaths Under One Year, Non- residents.	Total Stillbirths.	Stillbirths: Rate per 1,000 Live Births and Still- births Together.	Deaths of Mothers from Causes Incident to Pregnancy.	Death Rate of Mothers per 1,000 Live Births and Stillbirths.	Total Nonresident Deaths.	Percentage of Non- resident Deaths to Total Deaths.
Boston, Mass.	764,017	18,552	24.28	99+	11,423	14.95	1,720	92.7	293	613	32.0	156	8.1	1,861	16.3
New York City.....	5,839,738	129,684	22.21	100	69,690	11.93	9,066	75	161	6,125	45.10	699	5.15	1,901	2.73
Chicago, Ill.	3,833,288	56,724	20.0	.....	31,700	11.18	4,850	85.5	95	2,286	38.74	239	4.05	1,129	3.56
Philadelphia, Pa.	1,894,500	40,673	21.5	95	25,103	13.3	3,338	82.1	.....	1,980	46.42	280	6.6	536	2.1
Detroit, Mich.	952,000	25,923	27.2	98	11,084	11.6	2,271	87.6	87	1,367	50.09	186	6.8	596	5.4
Cleveland, Ohio.....	854,565	18,940	22.2	90+	8,743	10.23	1,437	75.9	.....	795	40.28	100	5.07	555	6.34
St. Louis, Mo.	795,008	14,081	18.4	90	9,922	12.6	838	56.8	.....	871	56.0	96	6.1	725	7.3
Baltimore, Md.	762,222	17,845	23.41	95	10,824	14.20	1,587	88.9	54	1,218	63.89	90	4.72	837	7.7
Los Angeles, Cal.	634,866	13,910	21.91	.....	9,608	15.13	991	71.96	.....	453	31.53	126	8.77	.....	.....
Pittsburgh, Pa.	607,902	14,964	24.6	.....	8,718	14.3	1,412	94.3	168	692	44.20	97	6.2	1,184	13.5
San Francisco, Cal.	580,000	8,656	14.92	98	7,465	12.87	515	59.47	.....	295	32.95	60	6.70	872	11.68
Milwaukee, Wis.	475,000	10,218	21.51	95	4,676	9.8	822	80.44	.....	345	33.76	.....	.....	319	6.81
Washington, D. C.	454,026	9,121	20.1	98.1	6,305	13.89	771	84.53	.....	495	51.47	27	2.8	.....	.....

Newark, N. J.	432,000	10,993	25.4	98	5,209	12.1	822	74.8	47	422	36.96	58	5.1	371	7.12
New Orleans, La.	405,000	10,162	25.09	98	6,684	16.50	823	81.0	.....	488	45.82	113	10.6	866	12.95
Minneapolis, Minn.	400,970	9,548	23.8	99	4,334	10.8	506	53.0	.....	345	34.87	51	5.15	705	16.
Indianapolis, Ind.	333,257	6,646	19.94	.....	4,441	13.32	509	76.10	.....	242	35.13	62	9.0	.....	.....
Toledo, Ohio.	260,717	5,664	19.42	95	3,063	11.74	375	74.5	.....	222	42.0	45	8.5	.....	.....
Providence, R. I.	241,000	6,371	26.44	98	3,340	18.85	484	75.96	.....	246	37.17	41	6.19	432	12.93
Louisville, Ky.	256,877	5,037	19.61	100	3,481	13.55	.....	.....	.....	267	50.33	.....	.....	.....	.....
Birmingham, Ala.	191,017	4,491	23.51	96	2,620	13.72	368	81.9	11	276	57.89	42	8.8	326	12.44
Richmond, Va.	178,365	4,123	23.12	92-95	2,635	14.77	365	89	.....	292	66.13	34	7.7	285	10.8
Bridgeport, Conn.	145,693	3,406	23.3	97-100	1,590	10.9	220	64.5	8	132	37.31	18	5.08	118	7.4
Hartford, Conn.	148,110	3,772	25.46	99.5	1,497	10.10	324	77	.....	143	36.52	23	5.9	435	22.5
Springfield, Mass.	139,104	3,553	25.54	98	1,601	11.51	226	63.61	36	135	36.61	21	5.69	248	15.49
Salt Lake City, Utah.	130,000	3,176	24.4	99	1,561	9.68	234	.....	.....	84	25.76	25	.....	.....	7.6
Fall River, Mass.	128,487	3,563	27.73	100	1,926	14.99	448	126.0	.....	155	41.68	20	5.3	.....	.....
New Bedford, Mass.	127,542	3,338	26.17	90	1,560	12.21	345	103.35	4	139	39.9	10	2.87	64	4.10
Lowell, Mass.	112,759	3,000	26.60	95	1,534	13.60	288	96.0	.....	128	40.9	12	3.83	.....	.....

The figures relating to cities other than Boston have been furnished by officers in those jurisdictions charged with the keeping of vital statistics.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of the April survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.03	3.43	81
Anderson, Oscar A.....	12.42	3.70	16
Antetomasso, P.....	12.33	3.65	13
Barden, R., Creamery Company.....	13.87	4.95	136
Barry, M. F.....	12.29	3.61	748
Barron, Clarence W.....	14.44	5.25	16
Bemis, H. E.....	12.24	3.58	21
Bergmann, J. H.....	12.81	3.91	105
Bolio, Mary J.....	12.76	4.10	15
Bowditch Estate, E. F.....	12.59	3.83	68
Brandley, T. J. & P. J.....	12.48	3.80	11
Brandon Farms Milk Company.....	11.90	3.51	238
Brookdale Creamery Company.....	9.87	2.90	128
Burns, James.....	12.23	3.73	427
Casey, James D.....	12.52	3.91	96
Cashin, James F.....	12.14	3.61	226
Chapin, George L.....	12.29	3.68	58
Childs Brothers.....	12.46	3.71	134
Clark, Levi.....	12.42	3.67	71
Cohen, Benjamin.....	12.22	3.56	88
Corkery, John H.....	12.12	3.50	173
Creeden & Crowell.....	12.18	3.65	77
Cummings, F. S., Company.....	12.10	3.55	24
Cunningham, Paul.....	13.00	4.20	344
Cusick, William H.....	11.85	3.48	1,066
Deerfoot Farms Milk Company.....	12.58	3.85	18
Denehy, Timothy.....	13.20	4.36	59
DiMauro, Gaetano.....	12.27	3.68	66
Driscoll, W. B., Company.....	12.46	3.76	14
Duggan Brothers.....	12.04	3.70	66
Edgerly, F. S.....	12.36	3.65	397
Elm Spring Farm Company.....	12.42	3.70	173

NAME OF DEALER.	SOLIDS	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
English, John	13.45	4.27	254
Ferguson, Malcolm D.....	12.44	3.83	190
Floyd Milk Company.....	12.17	3.70	207
Fortune & Allen.....	12.54	3.66	92
Gargulinski Joseph.....	11.88	3.43	43
Garvin, Charles E	12.71	4.25	666
Giroux, J. E., Company.....	12.31	3.65	129
Griffin, Joseph L.....	12.35	3.78	18
Griffin Brothers.....	12.44	3.73	52
Gushee, W. S., & Co.....	12.44	3.73	75
Hagar, J. M., & Sons.....	12.12	3.57	46
Hampden Creamery Company.....	12.89	3.90	234
Hancock, T. G., Company.....	12.34	3.65	127
Herlihy Brothers.....	12.44	3.85	140
Hickey, M. J.....	13.56	4.70	272
Holden, J. E.....	12.56	3.85	205
Hood, H. P., & Sons.....	12.26	3.68	136
Hurley, M. F.....	12.09	3.65	200
Jones, W. T., & Co., Inc.....	12.34	3.70	117
Kendall Brothers.....	12.06	3.48	186
Kennedy, Robert, Jr.....	12.11	3.75	46
Kingston, Samuel.....	12.62	4.00	16
Klaws & Freeman.....	12.99	4.03	85
Knapp, George J.....	12.28	3.66	136
Lang, Michael.....	12.40	3.60	44
Larkin, Patrick.....	12.65	3.80	50
Larsson, Charles.....	12.11	3.51	12
Lesser, Joseph.....	12.52	3.72	92
Lincoln Farms, Inc.....	12.64	4.05	103
Lubin, Felix.....	12.38	3.75	32
Lyndonville Creamery Company.....	12.78	3.73	700
Magee, Nellie A.....	12.06	3.50	20
Manning, Peter E.....	12.57	3.90	150
Maple Farm Milk Company.....	12.19	3.65	239
McAdams, John F.....	12.56	3.86	278
McKernan, John.....	13.18	4.10	122
Moore, Peter.....	12.10	3.53	490
Morgan, George D., & Sons.....	13.66	5.15	14
Munchbach, George.....	12.84	4.00	37

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Nelson & Bennison.....	11.99	3.58	171
Newton & Pope.....	12.78	4.00	152
Noble, W. F., & Sons.....	12.70	3.91	13
Pond, Harvey T.....	12.34	3.65	641
Rayercroft, Benjamin F.....	12.27	3.67	13
Robbins, Frank E.....	12.46	3.80	12
Robinson, A. J.....	12.60	3.90	47
Robinson, James A.....	12.30	3.63	170
Runkle, John C.....	12.51	3.87	204
Schuster, Adam.....	12.91	3.86	50
Seven Oaks Dairy Company.....	12.38	3.73	67
Shick, Jacob.....	12.42	3.66	298
Smith & Lynch.....	12.21	3.60	138
Somerset Farms.....	14.72	6.05	14
Sterling Farms Milk Company.....	12.16	3.60	31
Stone, H. L.....	12.40	3.75	346
Stuart, Wallis E.....	12.47	3.68	7
Sullivan, John D.....	13.10	4.20	8
Sullivan, Joseph L.....	12.05	3.57	26
Turner Center System, Inc.....	12.51	3.80	60
Upland Farms.....	13.83	4.45	8
Vartanian, Setrag.....	12.16	3.57	18
Walker Gordon Milk Laboratory.....	12.70	3.96	10
Ware, George H.....	12.38	3.75	31
Warren, Cornelia.....	13.63	4.26	12
Weiler, E., & Sons.....	12.39	3.73	56
Werner, Ferdinand.....	12.28	3.61	64
Westwood Farm Milk Company.....	12.35	3.65	37
White Brothers.....	12.33	3.75	198
Whittemore, Warner D.....	12.11	3.66	25
Whiting Milk Companies.....	12.18	3.61	271
Wiswall, G. A.....	12.42	3.85	41
Wittenberg & Co.....	12.23	3.75	397

NOTES.

Too much fresh air is just enough.

Do you nurse your baby? If not, why not?

Indoor workers should have plenty of outdoor air.

CHAIN STORE MILK.

NAME OF DEALER.	Supplied by.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.42	3.75	32
The Cloverdale Company.....	Turner Center System, Inc.	12.46	3.73	210
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company.	12.57	3.92	18
Co-operative Grocery Company,	J. M. Hagar & Sons.....	12.36	3.63	36
Economy Grocery Company....	Turner Center System, Inc.,	12.57	3.87	288
Morgan Brothers Company.....	Whiting Milk Companies...	12.30	3.73	870
M. O'Keeffe, Inc.....	J. M. Hagar & Sons.....	12.45	3.66	56
Rose Tea Company.....	H. P. Hood & Sons.....	12.29	3.65	74
Winer, M., Company.....	Winer, M., Company.....	12.59	3.58	100

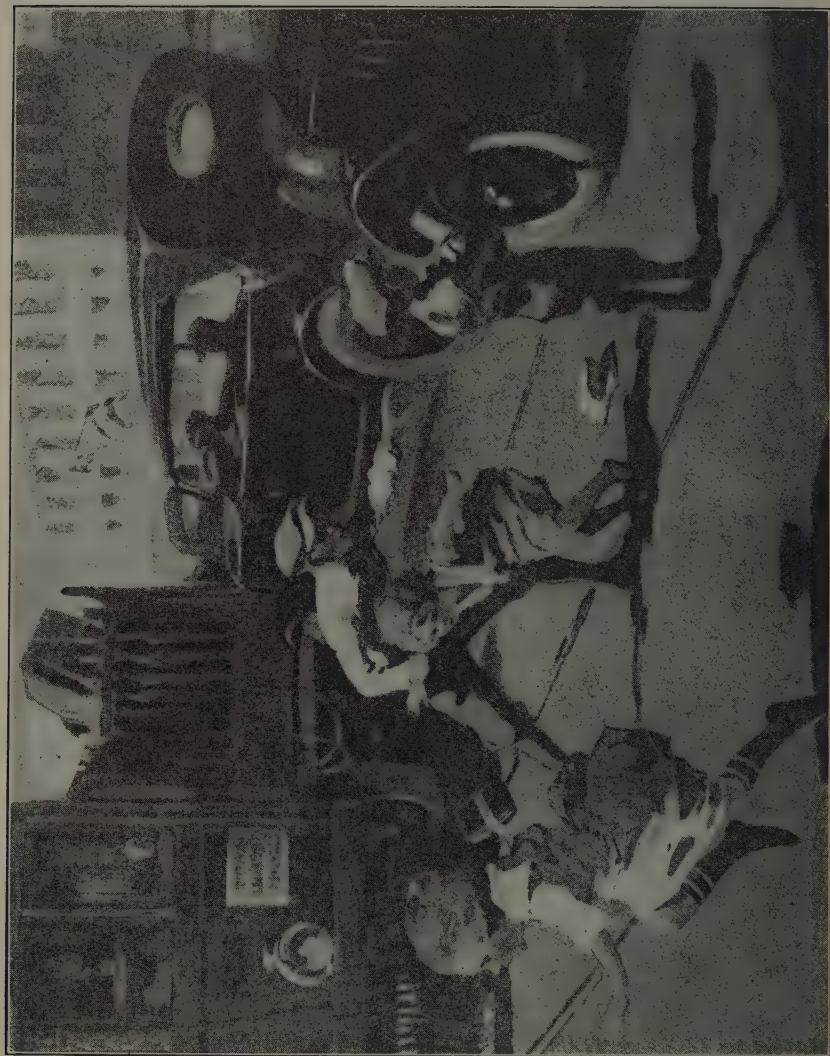
ACCURATE AND COMPLETE INFORMATION NECESSARY ON DEATH CERTIFICATES.

Too much importance cannot be attached to the responsibility devolving upon the undertaker to furnish complete and accurate details for the "Personal and Statistical Particulars" required on the standard certificate of death.

There are many important reasons for this information; court cases, where accurate death records are necessary to settle estates, to establish the relationship of a claimant in a contested will, to prove the legitimacy of a child and protect its birthright, to fix the correct age of the decedent, to furnish evidence in divorce trials, and in many other matters that are oftentimes of great importance to the person interested and to the administration of justice.

For purposes of statistical investigation and research it is absolutely necessary that the items required and requested on the death certificate be supplied accurately, otherwise the statistical tables supplied by this department annually are of no value because if the premise is incorrect we are simply wasting our time compiling statistical tables.

Undertakers are morally and legally responsible to use care in this important matter because it is part of their work, and necessary not only for their own records but also vitally necessary for the records of the city which are permanent, and which are hard to change as the years go by. If it takes a little more time to furnish the accurate details, the necessary time should be taken to insure a proper record. It is hoped that the undertakers of the City of Boston will co-operate with the Health Department in this important matter.



(National Safety Council.)

WAIT UNTIL IT'S SAFE TO CROSS!

SUMMARY OF THE WORK, APRIL, 1923.

BUREAU OF ADMINISTRATION.

	Apr.	Mar.		Apr.	Mar.
Visits to Conventions	1	0	Culture stations ap-		
Hearings (stable)	1	0	proved	0	1
Prosecution ordered	11	13	Special drafts	0	1
Undertakers' applica-			Personnel:		
tions approved	158	1	Appointments	9	12
Dump applications:			Permanent	1	0
Approved	4	5	Provisional	0	1
Permission to slaughter			Probationary	2	0
after sunset	7	0	Temporary	0	1
Lying-in hospitals ap-			Temporary exten-		
proved	2	3	sion	5	10
Lodging houses certified,			Reinstatement	0	0
Offensive trades ap-			Resignations	1	2
proved	13	2	Transfers from De-		
Disapproved	0	1	partment	1	0
Vacate notices	2	3	Transfers to Depart-		
Public sewer authorized,			ment	1	0
Legal notices	471	199	Leaves of absence	4	0
Day nurseries approved,			Forcible removals	0	1
Cemetery approved	0	1	Stable application ap-		
Antitoxin station ap-			proved	1	0
proved	1	1	Regulations adopted	0	1
Bids accepted	2	0			

LICENSES, PERMITS, ETC., ISSUED.

	Apr.	Mar.		Apr.	Mar.
Burial permits	1,185	1,312	Stable permits granted		
Disinterment permits	34	5	finally	1	0
Milk licenses	356	1,035	Denatured alcohol li-		
Peddlers' licenses, gen-			censes	0	1
eral	201	64	Manicure-massage:		
Revoked	1	0	Granted	19	24
Hen licenses granted	730	864	Grease	45	26
Hen locations disap-			Dumps	10	6
proved	1	0	Day nursery	0	6
Permit for roosters de-			Manure	3	0
denied	1	0	Beverages	30	0
Stable permits granted			Sundry	2	0
conditionally	0	1			

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Apr.	Mar.		Apr.	Mar.
Visits by medical inspec-			Vaccination certificates .	50	9
tors	1,875	2,194	Cases brought to Boston		
Deaths investigated	16	30	for treatment	87	154
Vaccination	26	21	Antitoxin administered .	44	62

NURSING SERVICE.

	Apr.	Mar.
Communicable disease visits	4,884	5,452
Babies visited, first visit	751	997
Revisits	1,028	1,517

HEALTH UNIT (Blossom Street).

Health Department proper:	Apr.	Mar.
Vaccinations	43	18
Vaccination certificates issued	20	4
Antitoxin injections	7	0
Dental clinic:		
Number of treatments	1,726	2,187
Number of dismissals	233	290
Number of children treated	447	0
Schick tests	0	10
Number of readings	0	9
Toxin-antitoxin administered	10	18
Cases visited by nurses:		
Medical	250	219
Complaints of unsanitary conditions	40	23
Visitors:		
Resident	27	7
Nonresident	0	2
General:		
Persons applying for information	398	320
Community Health Association:		
(a.) Baby Hygiene Association:		
New babies admitted	33	20
Homes visited by nurses	503	435
Conferences:		
Number held	3	5
Attendance	186	169
(b.) Instructive District Nursing Association:		
Visits made by nurses	1,857	2,199
Boston Dispensary:		
Calls by district physician	44	108
Boston Sanatorium:		
Calls by nurses in district	798	808
Jewish Welfare Center:		
Nutrition conferences:		
Number	4	*
Attendance	79	*
Nutrition classes:		
Number	4	*
Attendance	66	*

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Apr.	Mar.
New reports	2,944	3,168
Stores inspected	4,086	4,097
Sanitary defects remedied	204	170
Complaints at office	40	46
Referred to Sanitary Division	32	32
Milk applications approved	111	60
Street stands inspected	1	

* Figures not available.

	Apr.	Mar.
Peddlers:		
Applications for licenses approved	0	61
Vehicles inspected and approved	0	365
Court cases	3	2
Fines	\$35	0
Laboratory Examinations:		
Bacteriological	1	3
Chemical	7	1

CONDEMNATIONS.

BY REQUEST.

Cranberries	10 pounds	Oysters	5 gallons
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WITHOUT REQUEST.

Candy	100 pounds	Pickles	200 pounds
Cereals	80 packages	Raisins	10 pounds
Crabmeat	1,086 cans	Shredded cocoanut	6 pounds
Crackers	50 pounds	Shad	200 pounds
Fowl	4½ pounds	Squab	44 pounds
Ice cream cones	100	Shrimp	46 cans
Jello	35 packages	Spinach	225 barrels
Macaroni	20 packages	Sugar	12 pounds
Peanuts	25 pounds	Tomatoes	30 crates

LIVE STOCK INSPECTION (Brighton Abattoir).

	Apr.	Mar.		Apr.	Mar.
Cattle inspected	14	14	Swine inspected	4,862	5,456
Calves inspected	5,031	5,352	Parts condemned	189	181
Sheep	*	6	Animals condemned	14	20

DAIRY DIVISION.

	Apr.	Mar.		Apr.	Mar.
Total inspections	888	662	Without milk rooms	213	79
Dairies inspected	529	217	Inactive	35	17
Scoring above 50 *	343	145	Total cattle inspected	6,321	2,045
Scoring below	186	72	Bacteriological examina-		
With milk rooms	316	138	tions	18	0

* Passable mark.

BUREAU OF MILK INSPECTION.

	Apr.	Mar.		Apr.	Mar.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,404	1,628	Milk	697	638
Vinegar	20	64	Ice cream	82	0
Miscellaneous	14	6	Court cases	31	11
			Fines	\$545	\$255

SANITARY INSPECTION.

	Apr.	Mar.		Apr.	Mar.
Original inspections	3,083	1,964	Vacate notices served	3	2
New reports	4,121	3,069	Complaints	989	850
Reinspections	8,925	5,633	Court cases	15	10
Legal notices served	484	202	Fines	0	\$90

BACTERIOLOGICAL LABORATORY.

	Apr.	Mar.
Examinations for diagnosis and release:		
Diphtheria	1,847	1,734
Tuberculosis	355	1,273
Typhoid	41	34
Gonorrhea	674	592
Gonorrheal Ophthalmia	54	38
Syphilis	1,214	1,128
Other examinations	20*	33
Bacteriological examinations of milk	697	638
Special K. L. examinations	3	573
Special virulence tests	4	13

* Malaria, 5; G. U. T. B., 2; dog for rabies, 2; dark field examination, 5; milk for poison, 1; spinal fluid for meningococci, 1.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING APRIL, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	14	20.90
Seven days or less.....	6	8.96
Eight to fourteen days, inclusive.....	1	1.49
Fifteen to twenty-one days, inclusive.....	4	5.97
Twenty-two to thirty-one days, inclusive.....	1	1.49
WITHIN FIRST MONTH.....	26	38.81
Within second month.....	4	5.97
Within third month.....	3	4.48
Within fourth month.....	3	4.48
Within fifth month.....	3	4.48
Within sixth month.....	2	2.99
Within seventh month.....	1	1.49
Within eighth month.....	1	1.49
Within ninth month.....	—	—
Within tenth month.....	1	1.49
Within eleventh month.....	1	1.49
Within twelfth month.....	—	—
WITHIN FIRST YEAR PRECEDING DEATH.....	45	67.17
Within second year.....	8	11.94
Within third year.....	4	5.97
More than three years.....	10	14.93
Totals.....	67	100.01

VITAL STATISTICS, APRIL, 1923.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING APRIL, 1923, WITH COMPARATIVE FIGURES FOR APRIL, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	1,028	1,032	—4	16.01	16.21	— .20
Nonresidents deducted.....	849	852	—3	13.22	13.38	— .16
By AGE:						
Under one year.....	158	158	—	2.46	2.48	— .02
One year to four years, inclusive.....	76	44	+32	1.18	.69	+ .49
Sixty years and over.....	363	368	—5	5.65	5.78	— .13
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, So CALLED:						
Apoplexy.....	75	51	+24	1.17	.80	+ .37
Arterio-sclerosis.....	27	38	—11	.42	.60	— .18
Heart disease.....	142	158	—16	2.21	2.48	— .27
Nephritis, chronic.....	65	60	+5	1.01	.94	+ .07
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,611	1,441	+170	25.09	22.63	+2.46
b. Registered stillbirths.....	48	41	+7	.75	.64	+ .11
Stillbirths per 1,000 births and stillbirths,				28.93	27.66	+1.27
c. Deaths of mothers from causes incident to childbirth.....	17	10	+7	.26	.16	+ .10
Deaths of mothers per 1,000 births and stillbirths.....				10.25	6.75	+3.50
d. Deaths of children in first year of life. .	158	158	—	2.46	2.48	— .02
Deaths in first year per 1,000 live births,				98.07	109.64	—11.57
VIOLENCE:						
Accidents.....	59	41	+18	.92	.64	+ .28
Homicides.....	1	1	—	.015	.016	— .001
Suicides.....	6	11	—5	.09	.17	— .08
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	10	8	+2	.15	.12	+ .03
Broncho-pneumonia.....	56	60	—4	.87	.94	— .07
Cancer.....	70	99	—29	1.09	1.55	— .46
Cirrhosis of the liver.....	4	4	—	.06	.06	—
Diabetes mellitus.....	26	32	—6	.40	.50	— .10
Diarrhoeal diseases, children under two years of age.....	17	7	+10	.26	.11	+ .15

REPORTABLE ILLNESS AND DEATHS IN BOSTON, APRIL, 1923. — Concluded.

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
		1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:							
Anterior poliomyelitis.....	Cases...	2	2	—	.03	.03	—
	Deaths..	—	1	—1	—	.016	— .016
Cerebro-spinal meningitis.....	Cases...	3	—	+3	.05	—	+ .05
	Deaths..	3	—	+3	.05	—	+ .05
Diphtheria.....	Cases...	265	215	+50	4.13	3.57	+ .76
	Deaths..	7	5	+2	.11	.07	+ .04
Influenza.....	Cases...	11	22	—11	.17	.34	— .17
	Deaths..	6	3	+3	.09	.05	+ .04
Measles.....	Cases...	914	966	—52	14.24	15.17	— .93
	Deaths..	5	5	—	.08	.08	—
Pneumonia (lobar).....	Cases...	117	116	+1	1.82	1.82	—
	Deaths..	61	55	+6	.95	.86	+ .09
Scarlet fever.....	Cases...	346	178	+168	5.39	2.79	+2.60
	Deaths..	12	4	+8	.19	.06	+ .13
Tuberculosis (pulmonary).....	Cases...	145	190	—45	2.26	2.98	— .72
	Deaths..	70	78	—8	1.09	1.22	— .13
Tuberculosis (other forms).....	Cases...	38	26	+12	.59	.41	+ .18
	Deaths..	10	22	—12	.15	.34	— .19
Typhoid fever.....	Cases...	7	5	+2	.11	.08	+ .03
	Deaths..	3	1	+2	.05	.016	+ .03
Whooping cough.....	Cases...	344	24	+320	5.36	.38	+4.98
	Deaths..	13	1	+12	.20	.016	+ .18

This table includes all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated populations for July, 1923, and 1922, based upon the federal census of 1920, have been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

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MONTHLY BULLETIN
HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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No. 5

SCHOOLHOUSE AT PRENDERGAST PREVENTORIUM.

The latest of the additions to the buildings at the Prendergast Preventorium for Children of the Boston Tuberculosis Association at Mattapan is the schoolroom. The camp was opened in May of last year and until September, since it was practically the summer vacation of the public schools, little was thought about schooling. The children tended their gardens, played their games and roamed in the woods of the Prendergast place with their nurses, being thus in the fresh air all the day, while they slept in the dormitory that has no front, and thus had the benefit during the twenty-four hours of the out-door conditions that are to lead them back to health.

When September came, however, and the children of the city in general were returning to their schools, some of the parents of the children in the Preventorium began to get uneasy, fearing lest their children might be deprived of the advantages in education open to the other children and thus fall behind their fellows. For a while it was a question what should be done. The reason for this was that the children are not "legally" sick. They have not definite symptoms of any disease, although the authorities know very well

that some time in the future, unless preventive measures are taken, the children will really be recruits to the future armies of consumption.

Fortunately the School Committee of the City of Boston had a spirit above mere formality, and the Gordian knot was speedily cut by the assignment of a special teacher for the little ones. Miss Sadie V. Regan, a member of the regular teaching force of Boston, was detailed for the school at Prendergast, and shortly after the



PRENDERGAST OPEN-AIR SCHOOL WHERE THE CHILDREN OF THE PREVENTORIUM ARE ABLE TO KEEP PRETTY WELL UP WITH THE INSTRUCTION OF THE REGULAR SCHOOLS.

regular schools of the city were opened the school at the camp began its sessions in the rainy weather playhouse.

School teaching at Prendergast has its special features. In the first place there are no grades so that there are quite a number of parallel exercises running at the same time. In the next place, since the school room is practically in the open air and the winds blow freely through it, exercises with papers or cards cannot be conducted on breezy days. In winter any work that requires ink, for example, will be out of the question, and in cold weather when the hands must be protected, writing of any kind cannot be undertaken.

The teacher must therefore have a flexible schedule and fit the school exercises to the weather.

The new schoolhouse at Prendergast is a room about twenty-five feet square, with three sides missing but for the posts that support the roof. Through its ample openings there are views of the shrubbery of the estate, with occasional vistas of summits of the Blue Hill range, far away. Folding screens of beaver board serve for protection from driving storms, but the circulation of air is at all times



THESE TWENTY LITTLE BROWN BIRDS PERCHED IN A ROW ARE THE CHILDREN AT PRENDERGAST PREVENTORIUM. THIS IS THEIR DORMITORY, WHERE THEY SLEEP IN THE OPEN-AIR, WINTER AS WELL AS SUMMER.

exceedingly free. In the illustration the children may be seen at their studies, from the letters with which they form simple words to somewhat complicated exercises in arithmetic.

The benefits of the open air school do not need here to be emphasized save to say that classes of backward children, selected for such groups because they could not keep up with their fellows in the public schools, have not only caught up in the same studies, but have really passed the regular scholars in the schools.

It is a picturesque row, the children perched on the ledge of their dormitory at the Prendergast Preventorium, and activity and

interest are very evident. These are children, who six months ago, were pale and underweight, living in homes in which there is a case of tuberculosis. They are contact cases. By their sojourn of some months at Prendergast, they have been stocked up in health, they have learned the principles of healthful living and in general in their homes the attitude towards fresh air and good food has changed. They are really children saved for a useful and productive life through an institution that has given them care and treatment in accordance with the best established principles of prevention.

REPORTING OF COMMUNICABLE DISEASES.

In a recent article published in the "Monthly Bulletin" the attention of physicians generally was called to the duty imposed upon them by the laws of the Commonwealth with respect to the reporting of communicable diseases. This article was intended to be general, and to stress particularly the necessity for reporting all cases.

To report a case of communicable disease declared by the Department of Public Health of the Commonwealth of Massachusetts is not merely to report it by telephone, for instance, in order to insure notice on the part of the local board of health of the existence of the disease in the community. The report of a case in such a manner is appreciated, but the law requires that a report be sent to the local board of health in writing over the signature of the attending physician, as follows:

GENERAL LAWS, CHAPTER 111, SECTION 111.

If a physician knows that a person whom he visits is infected with smallpox, diphtheria, scarlet fever, or any other disease declared by the department dangerous to the public health, . . . he shall immediately give *written notice thereof, over his own signature*, to the board of health of the town. . . .

At considerable expense to the City of Boston each year the Health Department prints for free distribution to physicians and institutions throughout the city, specially prepared, prepaid post-cards designed for use in reporting communicable diseases. The use of these cards by the physicians and institutions makes it convenient for them and also makes the sorting, recording and indexing of the reports more uniformly convenient for the Health Department. If a physician's supply of these cards is approaching exhaustion, it is only necessary for him to note his need for further supply on the last card he uses, and a new supply will be sent immediately. A specially made request will meet with the same response. In complying with these requests, the Health Department has adopted the policy of sending but twelve blank cards upon each request for a supply.

This number of cards apparently is sufficient to keep the physicians consistently supplied with report forms, and also renders the payment of more than ordinary letter postage in mailing them unnecessary, an economic advantage worthy of consideration by the department.

This suggestion as to the necessity for written reports by physicians seems timely in view of the large numbers of cases that have been reported during the past few months. In some instances a report is made by the physician over the telephone and this report is considered sufficient by him, but a confirming report should be made on the postal card immediately so that there will be on record a written report of the case in question. This written report is a necessary part of the records of the Health Department, and is, as a matter of fact, the basis of the record in each particular instance. While a case of communicable disease brought to the attention of the Health Department by telephone message is investigated, quarantined and subsequently visited in the same manner as though it were formally brought to its attention in writing in the prescribed manner, this fact should not preclude the reporting of the case to the Health Department over the signature of the attending physician, in confirmation of the report made by telephone.

As suggested before, it is not entirely necessary that the report be made on the postal cards provided, if the report is made in any manner in writing, but it is more convenient for the keeping of the records if the official postal cards are used, and the use of them incidentally saves the physician postage.

It will be noted in the citation of the law requiring the report by physicians of communicable diseases declared to be dangerous to the public health, that the report is required to be given "immediately," which is generally considered to mean within twenty-four hours of making the diagnosis. Incidentally the Department of Public Health has ruled that the report must contain certain facts, among which are the name of the patient, his age, his address and the disease. Though this information is all that is legally required, the co-operation of the reporting physicians is asked in connection with the furnishing of the additional data that is specified on the reporting postal cards furnished. These additional data aid materially in an epidemiological study of the various diseases, and are of such a nature that it is not difficult for the attending physician to supply.

The co-operation of the physicians of Boston will be appreciated by the Health Department in these matters.

Swat the late and early fly and there won't be any by and by.

MEASLES AND SCARLET FEVER PREVALENT.

The attention of physicians was recently called to these diseases in the following language:

Undoubtedly you are aware, through your private practice, of the large number of cases of measles and scarlet fever that are appearing in this city, and although this situation may be called "seasonal" and because a similar condition prevails in most of the cities and towns in the Commonwealth, nevertheless I believe it is one that should be called to your attention and should merit your consideration.

Too many people, particularly parents, treat scarlet fever and measles lightly, and it is through this neglect and carelessness that the spread of these infections in their early stages occur. Some parents still cling to the old idea that the children must have these diseases sometime during their lifetime and they might just as well have them now as later. This ignorance has often been the cause of the spread of communicable diseases in families, and it has been this fallacy that has many times produced fatal results.

If the parent of today would appreciate the fact that illnesses of this type predispose to more serious and chronic ailments, if he would realize that tuberculosis of the lungs oftentimes follows measles, and that broncho-pneumonia sometimes complicates and kills the child, and if the parent understood that in scarlet fever the three commonest complications are nephritis, middle ear trouble and heart disease, if we could teach them that the early periods or stages of the diseases are the infectious periods, and if we could instill into their minds the importance of an immediate isolation and the maintenance of a proper quarantine the spread of infection would be minimized and the number of cases reduced, with a consequent reduction in the number of chronic ailments and deaths.

With the great increase in the number of cases of scarlet fever and measles besides the other endemic communicable disease that are daily reported at this time of the year, the field forces of the Health Department find themselves fully occupied. At times it seems almost impossible to visit all the cases immediately (the day reported), a proceeding often necessary to establish proper quarantine. The attending physician can help the situation immeasurably by emphasizing to the parents the necessity of *immediate isolation* and the protection that this will give to the other members of the household.

I believe we are having far too many cases of communicable diseases that are preventable, and although not much is known as to the cause of these maladies, no doubt should ordinarily exist as to the diagnosis in scarlet fever and measles, but if such doubt does

exist, the attending physician should insist on *immediate isolation* until he can determine the nature of the disease and issue the regular instructions to the parents as to the communicable nature of the disease.

Physicians and nurses in the schools, as well as teachers, can also assist by constant observations and immediate exclusion of children found suffering from these diseases or suspected of having either of them.

RECENT CONDEMNATION OF FOODSTUFFS.

In their endeavor to prevent the appearance for sale on the public markets of foodstuffs unfit for food, the officials and inspectors of the Health Department keep close supervision on all consignments of food arriving in Boston, as well as on all food stored or handled or offered for sale within the city.

It is deplorable from the standpoint of economy that it becomes necessary on occasion to seize and condemn large quantities of food; but the preservation of the public health renders the seizure and condemnation justifiable, even to the extreme of actual destruction of such food as is found to be unfit for human consumption.

During the month of May a report was received from the Boston & Maine Railroad of the arrival of a car of celery shipped from the South which contained an arsenic spray and as a consequence acceptance of the celery was refused by the consignees here. An inspector from the Health Department was detailed to make an examination and take samples for analysis. The samples examined showed that the celery was heavily infested with worms and dirt, with arsenic spray determined $\frac{1}{200}$ of a grain, which though small is an appreciable amount sufficient, together with the worms and dirt found on the celery, to warrant condemnation. A conference of federal and state food control authorities was had with the Boston Health Commissioner relative to the extent to which the spray found warranted condemnation under regulations governing such matters. The federal authorities failed to discover by analysis an amount of arsenic spray to warrant federal action in connection therewith, but it was the consensus of opinion that arsenic having been found in an appreciable quantity on the edible portion of the celery it should not be allowed to be sold on the public market. Further samples were taken and examined, and as a result, the shipment was condemned.

Condemnation of foodstuffs caused by fire damage occurred in two instances when fires happened within a short time of each other in the wholesale district of Boston. At one storehouse 120

tons of nuts were condemned; of these 60 tons were permitted to be shipped out of the state for mechanical purposes, with the consent of the federal authorities. At another house, damaged by fire, 78,000 pounds of miscellaneous canned goods, cereals and groceries were condemned; a portion of this, however, was permitted to be disposed of as hog food.

A shipment of oranges held up by the state of Maryland health authorities, but afterwards shipped, was found in Boston, on the suggestion of the federal authorities, and held by the Boston Health Department. These oranges were alleged to be so-called "dry stem" oranges, which leaves the outward appearance of the fruit apparently normal, but upon pressing down the stem end firmly, crunching of the dry pulp cells is audible. The dryness of the pulp begins at the stem and extends for various distances through the orange. This condition was found upon local examination and the car was held and the federal authorities notified.

PROGRESS IN HEALTH CONSERVATION.

Editorial comment appearing in the issue of June 7, 1922, of "The Boston Medical and Surgical Journal," on fifty years' progress in health conservation, is sufficiently gratifying and enlightening to quote it here as general public health information of interest to Boston physicians.

The editorial concludes with the statement that "It has been estimated that the average length of human life in the sixteenth century was between eighteen and twenty years, and at the close of the eighteenth century it was still less than twenty-five years. At the close of the nineteenth century it was between forty-five and forty-eight years; today in the United States it is fifty-six years, an increase of fifteen years since 1870, at about which time the development of bacteriology and the birth of scientific medicine began. The development of bacteriology and the application of the knowledge gained from animal experimentation are the two factors which may be credited with the increase in the span of human life during the past fifty years."

The application of scientific discoveries to conservation of human life (in the last 400 years) which has increased the span of life by almost four decades, serves to create the belief that time, money and effort expended in public health activities on a universal scale will lead to that state of bodily perfection approaching as near as may be to the peak of perfection which is the ultimate goal of arrival within the millenium.

DISINTERMENT OF HUMAN REMAINS AND REINTERMENT IN THE SAME CEMETERY.

An item of interest to superintendents of cemeteries and undertakers is a recent opinion of the Boston Law Department that a grave cannot legally be opened and a body removed therefrom to another grave in the same cemetery without a permit from the Health Department.

Most superintendents of cemeteries and undertakers would assume the necessity of such a permit, almost as readily as they would the need of a permit for the removal of the exhumed body from the cemetery altogether; but there are always some who try to read needless formality into what is in fact reasonable regulation. For the advice and direction of these, the Health Department is pleased to publish the legal opinion referred to, with the assurance that the department stands ready to enforce the same.

FRANCIS X. MAHONEY, ESQUIRE,

Health Commissioner, City Hall, Boston, Mass.:

DEAR SIR,—In answer to your letter of June 6, requesting an opinion whether a dead body can legally be removed from a grave and reburied in another grave in the same cemetery, without a permit from the Health Department, I beg to say that in my opinion this cannot be done and a permit is necessary under section 45 of chapter 114 of the General Laws and section 47 of the same chapter.

Very truly yours,

E. MARK SULLIVAN,
Corporation Counsel.

There are certain specific questions involving the proper administration of a municipal department upon which those who deal with the department can properly and do have opinions of their own. The powers and duties of municipal departments generally are laid down either as legislative statutory prescriptions, or are delegated in the powers granted city councils in city charters, permitting the enactment of local ordinances for the control of municipal functions. It is therefore not the function of the head of a municipal department to make these laws, or charters, or ordinances; on the contrary, his duty is administrative rather than legislative. He administers the powers conferred upon him in the manner in which his knowledge of the duties necessary for him to perform and obligatory upon him in the matter of performance, makes him more and more accurate with experience in the handling of the various activities concerned with his particular department. For the reason that he is not a legislative agent of government, but acts purely in a ministerial capacity, it is incumbent upon him whenever in doubt as to the exact method of exercise of the authority conferred upon him, to request legal advice. He sets forth the

facts of the situation involved, presents the difficulties arising, and is subsequently guided by whatever formal procedure is prescribed by his legal adviser within the municipality.

The question involved in the opinion cited above is one upon which a divergence of opinion might exist. It is sufficiently important in the administration of the Health Department to be definitely decided upon, as indicated in the opinion which is quoted for the information of superintendents of cemeteries and undertakers in Boston from whom co-operation is expected.

FORGET THE WEATHER.

It's hot, isn't it? Well, don't think about it. The weather is simply a fill-in as a topic of conversation so far as comment on it is concerned. It does not change its frigid or torrid intensity to talk about it; and when you do talk about it, you must think a little, at least, about it, and this keeps it on your mind. Forget it.

Most of us have to work in the pursuit of some occupation each day, or night, and most of us are thankful that we have work to do. It keeps us happy, contented and occupied. Some kinds of work, mental or physical, are more arduous than others. Those engaged in the more arduous types of occupation during the hot weather should not allow themselves to become so exhausted that they will then more easily become affected by severe heat. If the labor is physical and necessarily under the direct rays of the sun, some sort of light, protective head gear should be worn; if possible, remain in the shade. If the labor is physical or mental, and exhaustive or intensive, as well as indoors, the room or office in which the work is performed should be well ventilated by natural or artificial means, and the air should be kept stirred up, by means of electric fans if available.

Refrain from worry, especially over the possible effect of severe heat as a result of continued or exhaustive mental or physical work. Assume a contented frame of mind; and try to keep it.

If you are unusually warm and feel that a cooling shower or swim might be of some relief, wait until your body has cooled off before indulging in this form of relief. The benefits derived from it will be more lasting if thus taken, and the danger from a too quick cooling of the body while it is heated will be avoided. A thorough sponging of the body daily with cool water, or cold water if you can stand it is of benefit.

Clothe the body as lightly as convention and comfort demands; and wear clothing that is not unnecessarily tight fitting. If you do not swim, but are near a beach, don your bathing suit and allow

the air to cool your body, thus lightly clothed. Such an exposure of the skin to the air is beneficial anyway to persons of whom convention demands a covering for almost the entire body the greater portion of the time. Take advantage of the opportunity offered during the bathing season to allow the body to be more or less completely exposed to the air.

Eat light, nourishing foods; and eat moderately. Do not permit yourself to think that you will be less warm if you refrain from eating at all under the impression that the body will then contain less heat producing elements within. You will better withstand the effect of severe hot weather if you eat moderately and wisely.

Sleep regularly, in the open, if possible; but at any rate, see to it that the sleeping room is well aired. Keep the windows open, protect them by screening from the entrance of flies, mosquitoes, and other insects.

Exercise that is strenuous should be taken moderately during the warm weather, with due regard for the increased circulation of blood and internal production of heat caused by a too strenuous indulgence in vigorous exercise. If you do indulge in strenuous exercises, such as baseball or tennis, or the like, take frequent rests, preferably in the shade. Do not over-exert yourself.

Recreation that is enjoyed out of doors is more beneficial than that enjoyed within doors. Play in the open air, if you can.

In short, refrain from worry, don't let the weather bother you, or don't bother any one else with it. It exists; that's all there is to it. Be moderate in eating, drinking and exercising; sleep regularly; wear light clothing; don't "cool off" too quickly after exertion. Keep cool; be happy and contented; smile.

ICE AND MILK.

Now is the time to use ice in the care of milk. If your milk is delivered warm, see your milkman or storekeeper and caution him about it. If your word of warning does no good, transfer your trade elsewhere. The milkmen or storekeepers they ought to know the benefit to the milk supply of having it cold all the time. They should have it so without question.

The milk collectors make it a part of their business to see what the temperature of each sample is. Don't have any warm milk around, your record will be enhanced by low temperature milk.

Milkmen — storekeepers — have all milk packed in ice. Now that the warm weather is here have the milk cold; set a good example to the people you supply.

DENTAL SERVICE ESTABLISHED AT THE HEALTH UNIT.

The idea of a health unit or center, supported in whole, or in part, by a municipality in which should be focused, and from whence should radiate all of the public health work, as well as that under private auspices, has been nationally accepted as a sound theory since the establishment of the Boston Health Unit in 1916. At the same time there has developed a true conception of the type of service such a unit should give to the people of its district, with a clear, sound conviction that such service should have a maximum of educational emphasis along preventive lines, and a minimum of actual dispensary and medical service.

In other words, the unit should be, and Blossom Street clearly tries to be, primarily a clearing house from which the citizens may receive definite information about the medical resources of the community, and may be drawn into a diversified educational health program that aims in time to reduce to a minimum the need for medical care. The unit's specific function therefore, is preventive, rendering so far as is possible only that treatment which may be truly classified under preventive medicine.

An earnest endeavor is being made to concentrate upon the prenatal period, the new born and the pre-school age child, with a conviction that if a campaign of education along the lines of preventive medicine is urged during that period of life, benefits must derive when the child grows up.

The development of the Blossom Street Unit in the past seven years has been with this theory in mind, and slowly one function after another has been added to its program of constructive service to the children of the West End.

The splendid development and growth of the unit may best be shown from a statistical point of view. During the year 1922 there were over 8,000 more contacts or services rendered than in 1921, with a total for the year of 62,471 and a percentage increase over 1921 of about 15 per cent. For the first five months of 1923 there is a percentage increase of services rendered of over 50 per cent over 1922, and we can think of nothing that so forcibly and clearly demonstrates the necessity for the establishment of other health centers than these figures.

The latest feature, that of the dental service, marks a long step ahead in several important particulars. The service is definitely for the young child up to seven years of age, that is, for children under school age, and extending through the first school grade. It is also aimed to care for the dental needs of the expectant mothers of the district, it being recognized that the teaching of the care of the

teeth and dental hygiene to the mother will have important bearing upon the teeth of the offspring.

The organization of the dental service of the unit is unique and practical. While the equipment and operating expenses are met by the City of Boston and the station is under the general direction of the Health Commissioner through his representative, the Director of the Health Unit, the actual work is carried on by that splendid organization, the Forsyth Dental Infirmary for Children, under the supervision of Dr. Harold DeW. Cross, its efficient and well known director. The work is being done by two dentists and a dental hygienist in daily attendance from 9 to 5 o'clock, selected by Doctor Cross from his group of specially trained workers, and directly responsible to him for efficiency and standardization. The equipment is modern in every respect, was selected in accordance with the wishes and requirements of the Forsyth Dental Infirmary and leaves nothing to be desired.

The clients for the dental service are drawn from the children of the district not yet entered in the schools, as well as from those already enrolled in the kindergarten and the first school grade. The latter come in the care of the school nurse, to whose fine co-operation is due much of the success already achieved.

It may be pleasing to those who desire figures and statistics to confirm the soundness of the theory that justified the establishment of the dental service and its local needs, to quote the following statistics briefly:

The service was established on January 15, 1923, and figures up to June 2, 1923, show the following results:

There have been a total of 8,317 services rendered, with the following subdivisions: 7,509 dental operations and 976 prophylactic treatments, with 976 dismissals, as entirely finished.

In addition the children, and often their mothers, have been given instruction in the need as well as the technique of keeping the teeth clean, and each child, after dismissal, is expected to return at the end of six months for examination and further treatment.

It is easy to see what the results will be in adult life if this pre-school care of the teeth could and will be extended to the whole child population of the city. The remedy of small dental needs at the outset, together with the early acquisition of proper habits of daily dental care, will undoubtedly change the serious situation which was found to exist among the young men drawn for military service during our late war, when the records showed that over 95 per cent had dental defects.

The nutrition service, funds for which have been donated by the Brookline Service Club, is in the process of organization

with a full-time nutrition worker in attendance and an endeavor will be made to devote all energies upon the pre-school age child.

An intensive clean-up campaign has just been completed, with a remarkable sanitary improvement in the congested, cosmopolitan neighborhood that the Health Unit functions in.

ASSIST IN THE CAMPAIGN AGAINST THE MOSQUITO.

The mosquito hasn't a friend in the world, or at least none who make boast of it. Its enemies, however, are legion, and foremost among them is the Anti-Mosquito Association of Massachusetts, which is an organization consisting of leading men in the state in sanitary engineering and public health. The association counts among its members the State Health Commissioner and every local board of health in the Commonwealth, the heads of the departments of public health in Harvard College, the Institute of Technology, and other colleges, and also many noted physicians, including specialists in tropical diseases.

And with good cause is there so formidable an array against the mosquito, for by its habit of biting, and in its role as a carrier of disease, the mosquito is a source of discomfort if not of disease to mankind. Indoors as well as out, it plies its piratical course, sparing no one, man or beast, young or old.

And this implacable enemy of mankind, the mosquito, appeared unconquerable. There seemed no stopping it, until Gorgas turned his attention to it in his task of eliminating yellow fever from the Panama Zone.

The building of the Panama Canal was a wonderful achievement for America. Other governments had failed. The French spent millions of dollars and thousands of lives in a futile attempt. But as colossal as were these failures, just so colossal was the American success. It has been hailed as one of the most important engineering feats in the history of the world. Yet this feat could not have been accomplished without the extermination of that tiny insignificant insect, the mosquito.

The mosquito had in fact made life in the Panama Zone unbearable and unlivable. It took lots of money and many lives to exterminate the pest, for not by the wave of his hand could Gorgas cause the mosquito to cease breeding and disappear. It was by the collective co-operation, not only of every paid worker but of every inhabitant of the Panama Zone that this gigantic task was accomplished, and the result has resounded gloriously to the benefit of the individual, the community, the nation and the world.

The government did equally good service in Cuba and in certain

parts of the Philippines, and other places where the mosquito was an ever-present actual menace. With us, however, in Greater Boston, the problem is not so serious as in Panama and other semi-tropical localities; but, nevertheless, it exists. And what the government did there so gloriously we can emulate here.

Malaria is not necessarily a disease of the tropics. We have it here in this city and in this state. Last year there were many reported cases of malaria in this city and state. A certain kind of mosquito is a carrier of this disease, and we have this kind of mosquito right here in Boston. So that with us, too, the mosquito is more than an annoyance. Ordinarily we think of the mosquito as a mere kill-joy of a summer evening — at the beach or in the country — that is as an enemy of happiness only; but as we have seen, it may be more than this, it may be actually a menace to health. We urge, therefore, the co-operation of every individual in an effort to exterminate the mosquito. Swatting the mosquito we each do instinctively, and much good is done in this way, but the best remedy is to destroy its breeding places. So, let each of us see to it that no stagnant water is allowed to collect in our yards either in old barrels, in sunken grounds, or elsewhere. See that the gutters are not stopped up, but permit all water to pass off to the sewer. Cut away all high grass and weeds in your fields. Keep the garbage cans and the ash barrels tightly covered. These are a few of the ways in which we each can help to remove the source of supply on which the mosquito lives and breeds.

A year ago the Boston Health Department sprayed with oil a large area of swampy, stagnant or brackish waters throughout the city, a total of 1,500,000 square feet. This was a good start and the work will go on, but the city cannot do all, and the Anti-Mosquito Association of Massachusetts urges every individual to co-operate. Let each citizen assist in this campaign by ridding his premises of the mosquito, and let local boards of health add their united efforts, and we shall find that we are on our way to success. We well know what an asset to any country or beach resort is the reputation of having no mosquitoes to bother its patrons. We can if we wish make such a reputation for our own community, and let us do it here and now.

'Tis better to be inspected when suspected than dissected when infected.

The season of closed windows is followed by the season of open graves.

PSYCHIATRY IN STATE EXAMINATIONS.

Another important part of the program to meet present-day medical needs is that, as physicians are obliged to pass an examination in psychiatry, so nurses must qualify in psychiatric nursing before they can register to practice in the state. This training would give the nurse a better chance to deal successfully with her cases, mental and physical. It would make her one of the "sentinels of mental health," as Donald Laird puts it, and help to afford an opportunity for psychiatrists, who now concentrate their efforts upon institutional cases, to turn their attention to the community and become real hygienists.

Summary.

1. Psychiatry is no longer confined to asylums, prisons, almshouses. It is now one of the foremost problems of social and preventive medicine and is playing its part in educational, industrial, judicial and military organization.

2. Mental illness does not mean so-called insanity. Mental symptoms are frequently part of the picture in typhoid fever, puerperal conditions, autointoxication, and results of poisonous substances taken from without into the body.

3. Psychiatry and psychiatric nursing deal with the individual as a whole rather than with some particular organ.

4. The final analysis in every case, whether it be medical, surgical, obstetrical or what not, has a mental aspect which needs to be taken into consideration.

(a.) The suicides of chronic invalids.

(b.) The marked depression seen in cardiac and nephritic cases.

(c.) The exaltation of the hyperthyroid cases also seen frequently in tuberculosis.

(d.) The delirium of typhoid fever.

(e.) The confusion and mental deterioration seen in brain tumors.

(f.) The hallucinations seen in toxic conditions.

These are all part of the picture produced by the inevitable mixture of mental and physical conditions.

5. The mental atmosphere of the home can be best studied by the nurse. It is she who comes into most intimate contact not only with the patient and the immediate members of the family, but frequently she acquires a most intimate knowledge of the patient's personal life, including his worries, anxieties and the problems which he has to meet. With training pertaining to the mental health of patients the nurse can render reports which would be invaluable to the physician or surgeon in his task of making differential diagnoses.

Hysteria, for example, may assimilate any symptom from the category of medicine and it is only after a long period of observation by one who is familiar with mental reactions that these symptoms can be intelligently interpreted.

6. I do not appeal to you to enter the field of neuropsychiatric nursing on the basis of any altruistic motives nor do I hold out at this time any economic advantages which might result by entering this field. Rather would I lay stress on the fact that it is your duty as members of one of the noblest professions to neglect no opportunity to fit yourselves to render the best that is in you. Without knowledge of the mentality, personality and individuality of your patient this cannot be done. You are being deprived of an opportunity to determine for yourselves whether or not you have a special interest and leaning toward psychiatric nursing and you are also deprived of the reward and the satisfaction that comes from success in nursing a damaged personality back to health and happiness. (Dr. L. Vernon Briggs in "*The Modern Hospital*.")

VACCINATION WITH TYPHOID=PARATYPHOID VACCINE.

(The following method is approved by the United States Army for the administration of prophylactic immunization with typhoid-paratyphoid vaccine.—Army Medical Bulletin No. 1, January 15, 1923.)

A vaccination with typhoid-paratyphoid vaccine will consist of three inoculations of vaccine administered at intervals of not less than five and not more than fourteen days between consecutive doses; ordinarily the doses will be spaced at intervals ranging from seven to ten days. The dosage for adults will be 0.5 c.c. for the first dose and 1 c. c. each for the second and third doses.

Directions for administration.

The most suitable time for administering vaccine is in the afternoon. The site of election for inoculation is the left arm at the level of the deltoid insertion. The vaccine will be administered subcutaneously and special care will be taken that it is not injected into a muscle, into a vein, or into the skin.

The site of inoculation will be disinfected by painting with tincture of iodine. Care will be taken that the coating of iodine has thoroughly dried before the needle is inserted. The hypodermic syringe and needles will be sterilized by heat before use. A freshly sterilized needle will be employed for each individual vaccinated. At time of vaccination, each container in which the vaccine is distributed, whether ampule or bottle, will be examined carefully for cracks and other defects. Faulty containers and their contents will be discarded.

The ampule or bottle containing the vaccine will be thoroughly shaken to assure uniform distribution of the organisms, and wiped off with or immersed in a disinfectant (preferably acetone or alcohol). The ampule will be opened in such manner as to avoid contamination of its contents. The vaccine will be withdrawn directly from the ampule. Any excess vaccine remaining in opened ampules will be discarded.

If the vaccine for use is supplied in bottles the rubber stopper of the bottle will be sterilized by painting with tincture of iodine. The contents will be withdrawn by puncturing the rubber stopper with a sterile hypodermic needle.

The skin at the site of the needle puncture will be painted with tincture of iodine following the administration of vaccine.

Descriptions of reactions. Following the administration of typhoid-paratyphoid vaccine, slight systemic and local reactions ordinarily occur within twenty-four hours. The usual reaction includes headache and malaise, with local redness and tenderness surrounding the point of the inoculation. Occasionally the systemic reaction is more severe, consisting of a rise in temperature, headache, backache, nausea, vomiting, labial herpes, with very rarely albuminuria and some loss of body weight. Severe reactions are exceedingly unusual, and generally disappear within forty-eight hours.

Prevention of severe reaction. Except in cases of urgent military necessity, all individuals receiving typhoid-paratyphoid vaccine will be excused from duty, other than attendance at necessary roll calls, for a period of twenty-four hours after administration. Organization commanders will take the necessary steps to see that members of their commands who have severe reaction following the administration of vaccine are reported immediately to the surgeon of the command for necessary care and treatment.

REPORT TO "CLEAN-UP COMMITTEE" ON HEALTH DEPARTMENT ACTIVITY.

Civic co-operator's reports received by Health Department	381
No cause for action found upon investigation	171
Already (previously) reported	71
Faulty addresses, etc.	23
Cause found and work completed to date	55
In hands of inspectors; work not completed to date	61
	— 381

In this connection it may be of interest to know that during the period April 16–May 12, this department investigated conditions in 1,018 yards, 227 passageways and 141 vacant lots.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.20	3.56	49
Anderson, Oscar A.....	12.24	3.78	38
Antetomasso, Peter.....	12.63	3.96	12
R. Barden Creamery Company.....	13.80	5.10	636
Barron, Clarence W.....	13.30	4.30	13
Barry, Michael F.....	12.30	3.73	41
Bemis, H. E.....	12.00	3.48	31
Bergmann, John H.....	12.63	3.86	121
Bolio, Mary J.....	12.54	3.63	18
Bowditch Estate E. F.....	12.51	3.90	78
Brandley, T. J. & P. J.....	12.51	3.85	14
Brandon Farms Milk Company.....	12.09	3.56	56
Brookdale Creamery.....	12.46	3.70	122
Burns, James.....	12.16	3.73	91
Casey, John D.....	11.91	3.31	41
Cashin, James F.....	12.36	3.88	658
Chapin, George L.....	12.20	3.56	142
Childs Brothers.....	12.40	3.68	65
Clark, Levi.....	12.12	3.61	302
Cohen, Benjamin.....	12.29	3.65	48
Corkery, John H.....	12.48	3.88	97
Creedon & Crowell.....	12.02	3.65	533
Cummings, F. S., Company.....	12.18	3.61	23
Cunningham, Paul.....	12.86	3.98	41
Cusick, William H.....	12.20	3.70	806
Deerfoot Farms Milk Company.....	12.53	3.78	36
Denehy, Timothy.....	12.85	4.10	34
DiMaura, Gaetano.....	12.24	3.71	26
Driscoll, W. B., Company.....	12.41	3.75	20
Duggan Brothers.....	12.15	3.75	25
Edgerly, F. S.....	12.14	3.70	37
Elm Spring Farm Company.....	12.41	3.80	19

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
English, John.....	12.81	3.97	159
Ferguson, Malcolm D.....	12.12	3.71	64
Floyd Milk Company.....	12.60	4.00	258
Fortune & Allen.....	12.19	3.65	52
Garvin, Charles E.....	13.22	4.66	411
Giroux, J. E., & Co.....	12.11	3.60	74
Griffin, Joseph L.....	12.24	3.75	14
Griffin, Thomas J.....	12.26	3.65	82
Gushee, W. S., & C. W.....	12.22	3.58	15
Hagar, J. M., & Sons.....	12.38	3.66	14
Hancock, T. G., Company.....	12.29	3.71	37
Herliby Brothers.....	12.35	3.81	262
Hickey, M. J.....	12.86	4.05	61
Holden, John E.....	12.50	3.83	109
Hood, H. P., & Sons, Inc.....	12.32	3.66	139
Hurley, M. F.....	12.01	3.53	191
Jones, W. T., & Co., Inc.....	12.41	3.80	27
Kendall Brothers.....	11.98	3.46	144
Kennedy, Robert J., Jr.....	11.94	3.58	22
Kingston, Samuel.....	13.18	4.18	52
Klaw & Freeman.....	13.01	4.13	14
Knapp, George J.....	12.07	3.58	82
Lang, Michael.....	12.35	3.62	978
Larkin, Patrick.....	12.76	3.75	115
Larsson, Charles.....	11.99	3.51	32
Lesser, Joseph.....	12.37	3.61	57
Lincoln Farms, Inc.....	12.30	3.81	46
Lubin, Felix.....	12.70	3.95	30
Lyndonville Creamery Company.....	12.62	3.75	897
Magee, Nellie A.....	12.48	3.50	16
Manning, Peter E.....	12.40	3.81	45
Maple Farm Milk Company.....	12.18	3.65	106
McAdams, John F.....	12.26	3.65	144
McKernan, John.....	12.52	3.83	274
Moore, Peter.....	11.85	3.58	547
Morgan, George D., & Son.....	13.46	5.20	11
Munchbach, George.....	12.63	3.80	165
Nelson & Bennison.....	11.89	3.55	16
Newton & Pope.....	12.73	4.01	62

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Noble, W. F., & Sons.....	12.53	3.78	23
Pond, Harvey T.....	12.50	3.76	485
Raycraft, Benjamin F.....	12.00	3.67	40
Robbins, F. F.....	12.30	3.56	13
Robinson, A. J.....	12.38	3.85	38
Robinson, J. A.....	11.96	3.47	31
Runkle, J. C.....	13.13	4.27	587
Schuste, Adam.....	12.47	3.75	33
Seven Oaks Dairy Company.....	12.35	3.71	66
Shick, Jacob.....	12.49	3.88	332
Smith & Lynch.....	12.16	3.66	353
Somerset Farms Milk Company.....	13.08	4.36	11
Sterling Farm Milk Company.....	12.09	3.56	30
Stone, H. L.....	12.15	3.56	444
Stuart, Wallis E.....	12.32	3.75	11
Sullivan, J. D.....	13.14	3.96	57
Sullivan, J. L.....	12.14	3.63	74
Turner Center System.....	12.45	3.73	78
Upland Farms Milk Company.....	13.76	4.68	467
Vartanian, Setrag.....	12.18	3.67	367
Walker-Gordon Milk Company.....	12.19	3.65	8
Ware, George H.....	12.28	3.70	15
Warren, Cornelia.....	12.86	4.03	24
Weiler, E., & Sons.....	12.13	3.60	61
Werner, Ferdinand.....	12.28	3.63	37
Westwood Farm Milk Company.....	12.14	3.58	43
White Brothers.....	12.23	3.81	70
Whiting Milk Companies.....	12.10	3.56	204
Whittemore, Warner D.....	12.21	3.70	21
Wiswall, G. A.....	12.31	3.68	23
Wittenberg & Recks.....	12.47	3.78	183
Woodland, Charles.....	12.12	3.50	79

NOTES.

Fresh air is still free, are you getting your share?

Health makes money. Disease costs money.

A city's wealth lies in its people's health. When health goes, wealth goes.

CHAIN STORE MILK.

NAME OF DEALER.	Supplied by.	SOLIDS.	FAT.	Bacteria. Thousand in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc. . . .	12.40	3.71	16
The Cloverdale Company	Turner Center	12.60	3.93	488
Co-operative Grocery Company,	J. M. Hagar & Sons	12.42	3.71	24
John T. Connor Company	Bellows Falls Co-operative Creamery Association.	12.56	3.96	14
Economy Grocery Stores	Turner Center	12.60	3.96	38
M. O'Keeffe, Inc.	J. M. Hagar & Sons	12.36	3.80	38
Morgan Brothers Company	Whiting Milk Companies . . .	12.25	3.52	250
Rose Tea Company	H. P. Hood & Sons, and Whiting Milk Companies.	12.43	3.73	38
Winer, M., Company	Hyman Winer	12.44	3.63	61

VACATION.

The dictionary defines "vacation" as an intermission of procedure; a stated interval in a round of duties or employment, as for rest and recreation, especially one of considerable length, holiday.

As an intermission of procedure a vacation is decidedly advantageous to persons of all classes and pursuits in life. It means the abandonment, temporarily, of the routine of the year that has been carried on during its greater portion in a more or less rigid adherence to certain rules of conduct applicable in each particular instance according to individual proclivities. Application of effort in one or more directions during the allotted working portion of each day is a constant drain on vitality, energy and strength. The less arduous pursuits are perhaps not so draining on these constitutional resources as are the pursuits requiring great effort, mental or physical. The average person, however, is called upon in maintaining his particular standard of living, to use up considerable vitality, energy and strength during that portion of the year when ordinarily one either has not the opportunity to take extended periods of recreation and relaxation from routine or considers the appropriate time for variety of routine as the summer season.

Diversified interests in life render it possible for one person to continue an uninterrupted routine, without a resting interval, because of his choice of occupation or interest in life, and makes it almost a physical impossibility for another person to maintain, in his different sphere, the constant application of effort required of him without a restoration within him of the forces necessary to

enable him to carry on. No matter which extreme of effort, positive or negative, taxes the fountain of strength in greater or less degree, it is irrefutable that a stated interval in the particular round of duties or employment is beneficially necessary. Such an interval, however, should not be anticipated in the sense that it may be used as a means to recuperate from excessively exhaustive work, or over-work, in order to permit the continuance of such a routine during the time between one annual vacation and another. It should be anticipated more in the sense that it is to be a varied relief from routine that renders the enjoyment of it delightful and the results therefrom beneficially lasting in that a resourceful supply of energy is stored up, mentally and physically, that makes the return to routine pleasurable, rather than dreadful.

What is needed in this interval is a vacation in its true sense, an intermission of procedure; in other words, something different, a variety of program, a change. Specifically, if you work indoors, remain outdoors during the entire time of your vacation. Sleep outdoors, play outdoors, take all your recreation outdoors; practice deep, regular breathing; get all the fresh air you can. If your indoor activity is strenuous from a muscular standpoint, indulgence in forms of recreation that employ a different set of muscles is the type of change that you need. If your indoor activity is strenuous from a mental standpoint, indulgence in forms of recreations that develop your muscles is the proper variety you should seek, remembering only that unused muscles have a tendency to complain when harshly used after long inactivity.

In choosing your vacation place, pick out a location that gives you the particular kind of change that you need. Bear in mind a few essentials to a proper location, such as water supply of good quality, proper food, good drainage systems, the right kind of environment generally. If you live near the seashore, find a country or lake or mountain resort that permits the enjoyment of different kinds of scenery and landscape; if you live in the country, perhaps the tang of salt sea air surroundings may give you that "something different" which seems to require you to seek variety. The whole secret of a real vacation is an absolute change, which cannot help but give you rest and recreation because of its very difference; do the things in vacation that you wanted to do the balance of the year but could not because of the round of routine requiring you to forego what would otherwise have been welcome pleasures of relief. Change your program with wisdom, select with care, and indulge yourself wisely in pleasures that appear to you to give you the change that is most necessary to permit the continuance of the standards that require application of vitality, energy and effort during the portion

of the year when routine compels you to forego desired varieties of pleasure. Assume a frame of mind that permits you to enjoy yourself to the utmost, be contented and cheerful and happy, and alert to the things that surround you in the different atmosphere in which you find yourself for the time being. Return to that continuity of duty or employment you have selected for yourself or which has been thrust upon you, with no regrets, with anticipation, and with delight, knowing that you have restored your mental and physical resources, and feeling that you are full of vim, vigor and vitality and courage born of that knowledge.

LEARN TO "LET GO."

One of the most practical and absolutely truthful bits of philosophy appeared some time ago in "Medical Talk," on the wisdom of "letting go." It is something that is good for everyone, and all should try to practise it. Here it is:

If you want to be healthy morally, mentally and physically, just "let go."

"Let go" of the little bothers of every-day life, the irritations and the petty vexations that cross our path daily. Don't take them up and nurse them, pet them, and brood over them. They are not worth while. Let them go.

That little hurt you got from a friend, perhaps it wasn't intended, perhaps it was, but never mind, let it go. Refuse to think about it.

Let go of that feeling of hatred you have for another, the jealousy, the envy, the malice, let go all such thoughts. Sweep them out of your mind, and you will be surprised what a cleaning up and rejuvenating effect it will have upon you, both physically and mentally. Let them all go. You house them at deadly risk.

But the big troubles, the bitter disappointments, the deep wrongs and heart-breaking sorrows, the tragedies of life, what about them? Why, just let them go too. Drop them softly maybe, but surely. Put away all regret and bitterness, and let sorrow be only a softening influence. Yet, let them go, and make the most of the future.

Then that little pet ailment that you have been hanging onto and talking about, let it go. It will be a good riddance. You have treated it royally, but abandon it; let it go. Talk about health, instead, and health will come. Quit nursing that pet ailment and let it go.

It is not so hard after once you get used to the habit of it — letting go of these things. You will find it such an easy way to get

rid of the things that may mar and embitter life that you will enjoy letting them go. You will find the world such a beautiful place. You will find it beautiful because you will be free to enjoy it—free in mind and body.

Learn to let go. As you value health of body and peace of mind, let go — just simply let go.

HOT WEATHER SUGGESTIONS AND ADVICE.

Although it may be early to make suggestions for physical well-being during the hot weather, yet from the number of requests for advice that have come to the office of the Health Commissioner, he has deemed it worth while to offer a few hints which are especially applicable during hot weather, when the thermometer rises feverishly as it has recently, and yet are effective at any time. It is well to:

Dress lightly.

Bathe often.

Eat sparingly, and but little meat.

Eat only good food.

Drink plenty of water.

Abstain from ice water, especially when hot or exhausted.

Rest as much as possible in a cool place.

Get plenty of fresh air and sunshine, but avoid undue exposure to the sun.

Do not overwork, overeat or exhaust yourself.

It is particularly advisable to abstain and refrain from indulging in any of the dangerous beverages which now appear to be available.

DEATHS AND DEATH RATES FOR CERTAIN CITIES, MAY, 1923.

CITY.	Popula- tion Esti- mated July 1, 1922.	DEATHS DURING WEEK ENDING				DEATH RATES DURING WEEK ENDING			
		May 5.	May 12.	May 19.	May 26.	May 5.	May 12.	May 19.	May 26.
Boston.....	764,017	221	230	204	193	15.0	15.6	13.8	13.1
Bridgeport, Conn.....	143,555	33	27	32	30	12.0	9.8	11.6	10.9
Cambridge.....	110,944	31	21	28	34	14.5	9.8	13.1	15.9
Fall River.....	120,790	27	22	25	30	11.6	9.5	10.8	12.9
Lowell.....	114,423	44	28	30	28	19.9	12.7	13.6	12.7
New Bedford.....	127,542	25	26	31	44	10.0	10.4	12.4	17.6
Providence, R. I.....	241,011	71	59	76	56	15.3	12.7	16.3	12.0
Springfield.....	140,052	24	27	23	29	8.7	9.8	8.3	10.5
Worcester.....	188,449	44	52	40	53	12.0	14.1	10.9	15.4

SUMMARY OF THE WORK, MAY, 1923.

BUREAU OF ADMINISTRATION.

	May	Apr.		May	Apr.
Visits to Conventions . . .	1	1	Bids accepted	1	2
Hearings (stable)	0	1	Protest petitions received:		
Prosecutions ordered . . .	56	11	Against cemetery . . .	1	0
Undertakers' applica-			Against rendering		
tions approved	1	158	plant	1	0
Dump applications:			Special drafts	1	0
Approved	6	4	Personnel:		
Permission to slaughter			Appointments	7	9
after sunset	0	7	Permanent	4	1
Lying-in hospitals ap-			Probationary	3	2
proved	0	2	Temporary exten-		
Lodging houses certified,	1	7	sion	0	5
Offensive trades ap-			Resignations	0	1
proved	0	13	Transfers from De-		
Reassigned	1	0	partment	1	1
Vacate notices	1	2	Transfers to Depart-		
Public sewer authorized,	0	1	ment	0	1
Legal notices	473	471	Leaves of absence	3	4
Cemetery approved	1	0	Retirements	1	0
Antitoxin station ap-			Stable application ap-		
proved	0	1	proved	0	1

LICENSES, PERMITS, ETC., ISSUED.

	May	Apr.		May	Apr.
Burial permits	1,094	1,185	Stable permits granted		
Disinterment permits . . .	57	34	finally	0	1
Milk licenses	1,640	356	Denatured alcohol li-		
Peddlers' licenses, gen-			censes	49	0
eral	216	201	Manicure-massage:		
Revoked	0	1	Granted	522	19
Hen licenses granted . . .	125	730	Grease	2	45
Hen licenses revoked . . .	1	0	Dumps	6	10
Hen locations disap-			Manure	1	3
proved	1	1	Beverages	0	30
Permit for roosters de-			Sundry	2	2
nied	0	1	Offensive trade	9	0
Granted	1	0			

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	May	Apr.		May	Apr.
Visits by medical inspec-			Vaccination certificates .	208	50
tors	2,878	1,875	Cases brought to Boston		
Deaths investigated . . .	17	16	for treatment	95	87
Vaccination	637	26	Antitoxin administered .	37	44

NURSING SERVICE.

	May	Apr.
Communicable disease visits	4,934	4,884
Babies visited, first visit	68	751
Revisits	1,146	1,028

HEALTH UNIT (Blossom Street).

	May	Apr.
Health Department proper:		
Vaccinations	696	43
Vaccination certificates issued	123	20
Antitoxin injections	5	7
Children examined for camps and day nurseries	1	0
Dental clinic:		
Number of treatments	2,110	1,726
Number of dismissals	274	233
Number of children treated	646	447
Toxin-antitoxin administered	0	10
Cases visited by nurses:		
Medical	258	250
Complaints of unsanitary conditions	16	40
Visitors:		
Resident	4	27
Nonresident	1	0
General:		
Persons applying for information	471	398
Community Health Association:		
(a.) Baby Hygiene Association and Health Department Nurses:		
New babies admitted	33	33
Homes visited by nurses	513	503
Conferences:		
Number held	7	3
Attendance	228	186
(b.) Instructive District Nursing Association:		
Visits made by nurses	2,093	1,857
Boston Dispensary:		
Calls by district physician	31	44
Boston Sanatorium:		
Calls by nurses in district	979	798
Jewish Welfare Center:		
Nutrition conferences:		
Number	4	4
Attendance	130	79
Nutrition classes:		
Number	4	4
Attendance	56	66

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	May	Apr.
New reports	3,153	2,944
Stores inspected	4,266	4,086
Sanitary defects remedied	190	204
Complaints at office	76	40
Referred to Sanitary Division	30	32
Milk applications approved	218	111

	May	Apr.
Peddlers:		
Applications for licenses approved	228	178
Vehicles inspected and approved	649	633
Court cases	0	3
Fines	0	\$35
Laboratory Examinations:		
Bacteriological	0	1
Chemical	4	7

CONDEMNATIONS.

BY REQUEST.

Peaches	14 cans
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WITHOUT REQUEST.

Celery	336 crates	Mixed nuts and pea-	
Chicken	3 $\frac{3}{4}$ pounds	nuts	120 tons
Chocolates	125 pounds	Poultry	15 pounds
Corned beef	77 pounds	Rolled oats	34 bags
Flour	4 bags		(90 pounds each)
Miscellaneous, canned		Smoked shoulder	6 pounds
goods, cereal and		Spare ribs	25 pounds
groceries	73,500 pounds		

LIVE STOCK INSPECTION (Brighton Abattoir).

	May	Apr.		May	Apr.
Cattle inspected	9	14	Parts condemned	3,304	189
Calves inspected	1,839	5,031	Animals condemned	13	14
Swine inspected	4,962	4,862			

DAIRY DIVISION.

	May	Apr.		May	Apr.
Total inspections	995	888	Without milk rooms	170	213
Dairies inspected	463	529	Inactive	60	35
Scoring above 50 *	297	343	Total cattle inspected	6,227	6,321
Scoring below	166	186	Bacteriological examina-		
With milk rooms	293	316	tions	146	18

* Passable mark.

BUREAU OF MILK INSPECTION.

	May	Apr.		May	Apr.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,494	1,404	Milk	855	697
Vinegar	26	20	Ice cream	119	82
Miscellaneous	10	14	Court cases	18	31
			Fines	\$240	\$545

SANITARY INSPECTION.

	May	Apr.		May	Apr.
Original inspections	1,627	3,083	Vacate notices served	3	3
New reports	2,770	4,121	Complaints	1,218	989
Reinspections	10,203	8,925	Court cases	39	15
Legal notices served	481	484	Fines	\$7.20	0

BACTERIOLOGICAL LABORATORY.

	May	Apr.
Examinations for diagnosis and release:		
Diphtheria	1,694	1,847
Tuberculosis	299	355
Typhoid	50	41
Gonorrhea	793	674
Gonorrheal Ophthalmia	43	54
Syphilis	1,185	1,214
Other examinations	37*	20
Bacteriological examinations of milk	855	697
Special K. L. examinations	0	3
Special virulence tests	0	4

* Malaria, 4; G. U. T. B., 2; dog for rabies, 4; spinal fluid for organisms, 1; smear for Vincent's Angina, 1; cultures for diphtheria, special, 14; genito-urinary tuberculosis, 13.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING MAY, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	11	18.03
Seven days or less.....	5	8.20
Eight to fourteen days, inclusive.....	3	4.92
Fifteen to twenty-one days, inclusive.....	2	3.28
Twenty-two to thirty-one days, inclusive.....	3	4.92
WITHIN FIRST MONTH.....	24	39.35
Within second month.....	5	8.20
Within third month.....	2	3.28
Within fourth month.....	5	8.20
Within fifth month.....	—	—
Within sixth month.....	1	1.64
Within seventh month.....	1	1.64
Within eighth month.....	1	1.64
Within ninth month.....	1	1.64
Within tenth month.....	2	3.28
Within eleventh month.....	—	—
Within twelfth month.....	—	—
WITHIN FIRST YEAR PRECEDING DEATH.....	42	68.86
Within second year.....	12	19.67
Within third year.....	2	3.28
More than three years.....	5	8.20
Totals.....	61	100.01

HEALTH DEPARTMENT.

Tel. Congress 5100.

Commissioner of Health	. . . . .	1109 City Hall Annex.
Secretary	. . . . .	1108 City Hall Annex.
Medical Division	. . . . .	1110-11 City Hall Annex.
Health Unit	. . . . .	17 Blossom street.
Detention Hospital	. . . . .	Southampton street.
Bacteriological Laboratory	. . . . .	1101 City Hall Annex.
Food Inspection Division	. . . . .	1001A City Hall Annex.
Inspection of Foodstuffs	. . . . .	1001A City Hall Annex.
Examination of Milk and Vinegar	. . . . .	1104 City Hall Annex.
Inspection of Dairies	. . . . .	1001G City Hall Annex.
Brighton Abattoir	. . . . .	Market street, Brighton.
Sanitary Inspection Division	. . . . .	1001C City Hall Annex.
Abatement of Nuisances	. . . . .	1001B City Hall Annex.
Examination of Gas Fitters	. . . . .	1001C City Hall Annex.
Vital Statistics Records and Accounts		
Division	. . . . .	1112 City Hall Annex.
Permits for Burial	. . . . .	1112 City Hall Annex.
Superintendent of Peddlers	. . . . .	27 North Grove street.

Office Hours.— General offices on the eleventh floor of the City Hall Annex, 9 a.m. to 5 p. m., excepting on Saturday afternoons, Sundays and holidays, for the transaction of business not specified below.

Room 1112, City Hall Annex, eleventh floor, open from 5 p. m. to 10 p. m., and Sundays and holidays from 10 a. m. to 10 p. m., for the reporting of cases of communicable diseases, the issuing of burial permits, the receiving of cultures and widals, and the receiving of complaints.

The distribution of vaccines and antitoxins will be from the laboratory between the hours of 9 a. m. and 6 p. m., excepting Saturday afternoons, Sundays and holidays.

Wassermann Tests, Etc.— The bacteriological laboratory is prepared to examine free of expense blood specimens by the Wassermann test for syphilis. Tests are made each Tuesday, Wednesday, Thursday and Friday. Blood is drawn from patients in the laboratory each Monday, Tuesday, Wednesday and Thursday from 2 to 4 p. m.

Dark Field Illumination.— The bacteriological laboratory is prepared to examine free of expense at the request of physicians lesions suspected of being syphilitic, by dark field illumination. Tests are made every afternoon between 2 and 4 p. m., except Saturdays, Sundays and holidays.

VITAL STATISTICS, MAY, 1923.

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON DURING MAY,
1923, WITH COMPARATIVE FIGURES FOR MAY, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	903	861	+42	14.06	13.52	+ .54
Nonresidents deducted.....	754	718	+36	11.74	11.28	+ .46
BY AGE:						
Under one year.....	111	91	+20	1.73	1.43	+ .30
One year to four years, inclusive.....	54	45	+9	.84	.71	+ .13
Sixty years and over.....	332	310	+22	5.17	4.87	+ .30
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy.....	62	36	+26	.96	.56	+ .40
Arterio-sclerosis.....	32	39	-7	.50	.61	- .11
Heart disease.....	156	138	+18	2.43	2.17	+ .26
Nephritis, chronic.....	53	52	+1	.83	.82	+ .01
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,641	1,558	+83	25.56	24.47	+1.09
b. Registered stillbirths.....	64	47	+17	1.00	.74	+ .26
Stillbirths per 1,000 births and stillbirths.....				37.54	29.28	+8.26
c. Deaths of mothers from causes incident to childbirth.....	15	14	+1	.23	.22	+ .01
Deaths of mothers per 1,000 births and stillbirths.....				8.80	8.72	+ .08
d. Deaths of children in first year of life...	111	91	+20	1.73	1.43	+ .30
Deaths in first year per 1,000 live births.....				67.64	58.41	+9.23
VIOLENCE:						
Accidents.....	37	43	-6	.58	.67	- .09
Homicides.....	2	4	-2	.03	.06	- .03
Suicides.....	11	10	+1	.17	.16	+ .01
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	9	6	+3	.14	.09	+ .05
Broncho-pneumonia.....	33	51	-18	.57	.88	- .37
Cancer.....	94	101	-7	1.46	1.59	- .13
Cirrhosis of the liver.....	2	2	-	.03	.03	- .03
Diabetes mellitus.....	12	14	-2	.19	.22	- .03
Diarrhoeal diseases, children under two years of age.....	7	6	+1	.11	.09	+ .02

REPORTABLE ILLNESS AND DEATHS IN BOSTON, MAY, 1923. — Concluded.

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
		1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:							
Anterior poliomyelitis.....	Cases...	—	—	—	—	—	—
	Deaths..	—	—	—	—	—	—
Cerebro-spinal meningitis.....	Cases...	3	3	—	.04	.04	—
	Deaths..	2	2	—	.03	.03	—
Diphtheria.....	Cases...	282	241	+41	4.39	3.78	+.61
	Deaths..	14	10	+4	.22	.16	+.06
Influenza.....	Cases...	2	8	—6	.03	.12	— .09
	Deaths..	2	4	—2	.03	.06	+ .03
Measles.....	Cases...	1,278	916	+362	19.91	14.38	+5.53
	Deaths..	8	3	+5	.12	.04	+.08
Pneumonia (lobar).....	Cases...	81	117	—36	1.26	1.84	— .58
	Deaths..	35	57	—22	.54	.89	— .35
Scarlet fever.....	Cases...	397	19	+206	6.18	3.00	+3.18
	Deaths..	4	5	—1	.06	.08	— .02
Tuberculosis (pulmonary).....	Cases...	175	179	—4	2.72	2.81	— .09
	Deaths..	62	62	—	.96	.97	— .01
Tuberculosis (other forms).....	Cases...	45	56	—11	.70	.88	— .18
	Deaths..	13	11	+2	.20	.17	+.03
Typhoid fever.....	Cases...	9	4	+5	.14	.06	+.08
	Deaths..	—	—	—	—	—	—
Whooping cough.....	Cases...	170	55	+115	2.65	.86	+1.79
	Deaths..	12	1	+11	.19	.01	+.18

This table includes all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

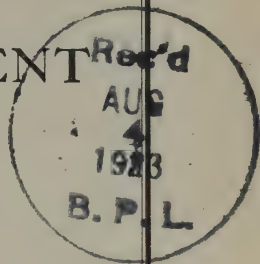
Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated populations for July, 1923, and 1922, based upon the federal census of 1920, have been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

MONTHLY BULLETIN HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 12.

BOSTON, JUNE-JULY, 1923.

No. 6-7

RAT WORK THAT HAS BEEN DONE IN BOSTON.

The trapping and examination of rats as an intensive function of the Boston Health Department has been discontinued for the present. It seems, therefore, that a descriptive statement of the work done by the Boston Health Department and other public and private agencies interested in such matters pertaining to public welfare is eminently proper now to place the story officially on record for future reference and guidance, and as a particular contribution to the official records of the Boston Health Department on the subject.

As a matter of fact, however, Boston started doing some rat work as early as 1914, employing one permanent rat catcher in that year. The entire waterfront territory was covered by dividing the district into five sections, each of the five sections being visited on successive days, thus completing the survey of the entire waterfront territory each week. The number of rats trapped varied from five to ten a day up to April, 1917, during which time the rat catcher was engaged specially in trapping.

In April, 1917, the rat catcher was transferred to the Sanitary Division of the Health Department where his work was entirely

confined to inspecting with reference to rat conditions rather than trapping. This supervision was carried on in this manner until September 1, 1920, when it was deemed advisable after a visit to southeastern ports, where the plague was prevalent at that time, to reassign the rat catcher to the Laboratory Division to resume the trapping of rats preliminary to autopsying the same for pathological symptoms of bubonic plague. This was continued until February, 1921, when, in co-operation with the State Department of Public Health an intensive rat survey was begun with a force of five rat trappers, one supervisor and one chauffeur. This arrangement continued until May 14, 1921, when the state funds were exhausted.

Boston resumed rat trapping about June 1, 1921, with its own force of four men, gradually increasing the number to nine in the latter part of 1921, when the force was reduced again to four. The number of trappers employed varied from three to four until September, 1922, when the services of all but one man were discontinued and this one man acted both as inspector and rat trapper along the waterfront up to December 12, 1922. Two rat trappers and one chauffeur were then re-employed and trapping continued on a little larger scale up to February 12, 1923. One man only is now employed and is spending most of his time in inspecting the waterfront, urging proprietors of waterfront establishments to keep their places in a condition which will not allow them to become harboring or breeding places for rodents. It is hoped that there will be a periodic intensive campaign every third month in the future.

During the entire time in which rat examination has been carried on in Boston only one suspicious rat was found. However, thorough examination was made by Dr. Richard P. Strong, who acted as the state representative, and Dr George W. McCoy, who acted as the federal representative, under the tentative agreement made between the federal, state and city governments. This committee of three, consisting of Doctor McCoy, representing the federal government, Doctor Strong, representing the state government, and Dr. Philip Castleman, representing the city government, reached the conclusion that this suspicious rat was not a plague rodent, although pathologically as well as culturally the lesions and the organisms closely resembled bubonic plague. Every rat was autopsied and a mass inoculation made daily from the catch of the various men, but nothing further was discovered to excite suspicion. There was an immediate intensification of trapping in the district where the suspicious rat was caught, in that way hoping to prevent the further spread inward in case the said rat was proven to be a plague-infected rodent.

Summary of Trappings, Examinations, etc.—An exam-

ination of the records of the department shows in detail that in 1915 there were 194 rats examined; 1,166 in 1916; 1,022 in 1917; 545 in 1918; 141 in 1919; 129 in 1920; 9,731 in 1921; 7,692 in 1922, and 184 in 1923 to March 9. It will be seen from the above that intensive trapping and subsequent examination was not done until 1921. The small number of rats trapped and examined in 1919 and 1920 as compared with years preceding and following is accounted for by the fact that the permanent rat catcher of the department during this period was employed in an inspecting capacity, urging proprietors of waterfront establishments to keep their premises clean, to protect garbage receptacles from inroads by rats, and to take other means tending to preserve the Port of Boston from an invasion by possible plague-infected rodents. The average number of men employed by the Boston Health Department since rat work was intensively begun in Boston in June, 1921, has been six, though the actual number of trappers has at times been larger and at other times smaller. Toward the latter part of 1922 there was but one rat catcher employed, which has since been increased to three. In 1914 the cost of personnel for actual rat trapping and for examination was \$220; in 1915, \$1,092; in 1916, \$1,092; in 1917, \$275; in 1920, \$485; in 1921, \$4,562.89 for rat trapping and \$454.86 for laboratory assistance; in 1922, \$6,515.38 for rat trapping and \$1,218.09 for laboratory assistance; and in 1923, \$1,002.32 for rat trapping and \$354.17 for laboratory assistance. The total cost for personnel in connection with rat work performed has been, to March 15, 1923, \$17,269.71.

During the period within which the Boston Health Department was engaged intensively in the work of trapping and examining rats, *i. e.*, from June, 1921, up to March 15, 1923, the date to which this report is effective, it is estimated that there has been about \$200 spent for ten gross of rat traps, about \$25 for one hundred gallons of kerosene, about \$75 for receptacles, \$50 for printing, and \$100 for bags and carrying cases for the use of the rat trappers. The total cost for supplies during this period has been approximately \$500, allowing \$50 for miscellaneous expenses.

Method of Examination.— It may be of interest to set forth here in detail the actual methods employed by the Boston Health Department in its trapping of rats and the examination of these rats by the laboratory.

With the prevalence of bubonic plague in some of the gulf cities during the summer and fall of 1920 the Boston Health Department found it advisable to investigate the condition and then to inaugurate a rat survey on a large scale. Up to 1921 the entire work was carried out by one man, naturally on a very small scale.

The State Department of Public Health, failing to obtain a sufficient sum of money to carry on a state-wide campaign, co-operated with this city for three months by furnishing to the Health Department four rat catchers, a chauffeur and laboratory aid to make the survey in this city more effective.

The work of survey is carried out as follows: Each rat trapper, of which there are four, is supplied with about one hundred guillotine traps, sufficient bait, such as cheese, bacon, etc., a metal receptacle with a fairly tight cover, in which there is kerosene, perforated tags with wire so that they may be readily fastened onto the rat, a three-cornered file, wire brush and cleaning oil to keep the traps in good working condition.

The trappers assemble each morning at 7 a. m. in the city garage where they are taken by automobile to their destinations on the waterfront. All the traps that have been baited the day before are examined, the trapped rats properly tagged, tag removed from stub, and the rat, with stub attached, immediately immersed in the kerosene oil so as to kill off any fleas that may be on the rat. The tag has a stub with a number similar to the number on the tag. The trapper notes the location, occupant and kind of business on the premises where the rat is caught, species of rat, and whether the rat is trapped or found dead, and the name of the rat trapper. On the other side of the tag is a space for the date, rat number, species, sex, laboratory finding and name of the examiner. The trapped rats and the properly filled out tags are brought to the laboratory each day by the supervising rat catcher while the rat catchers are preparing the traps for the following day's catch.

In the laboratory the rats are placed on a metal covered table. Each rat, with stubs attached, is tacked on a shingle, belly up, the tacks placed through the paws. A magnetic hammer aids considerably and is a great time saver. The rats are then dissected by first reflecting the skin over the entire ventral surface, thus exposing the inguinal axillary and cervical glands and internal abdominal wall. The abdominal wall blood vessels are examined to make certain that they are not infected and that the entire abdominal musculature is not discolored, except perhaps for a discoloration due to the blow from the trap.

Examination of the inguinal, axillary and cervical areas is carried out for buboes. The abdomen is then opened, the liver examined for granules and the spleen for granules, great enlargement and deep dark discoloration. The chest is then opened and examined for pleural effusion.

The great majority if not all of the day's catch of rats is so typically negative that very little time has to be spent on the exami-

nation. Those that show any suspicious signs are more thoroughly examined, smears made from the suspicious organs, stained with carbolthionin and examined microscopically for *B. Pestes*. The suspicious organ is then removed, placed in a sterile mortar, macerated with sterile salt solution, and macerated material inoculated into guinea pigs, cutaneously or subcutaneously, using about one half cubic centimeter of the material. Those rats that are negative are grouped on the basis of the trappers, that is, each man's catch is considered one group. Pieces of liver and spleen from each rat in the group are macerated with sterile salt solution, as mentioned above, and the guinea pigs inoculated subcutaneously.

This is called a mass inoculation of all the rats trapped, in group form. In order to decrease the mortality of our inoculated guinea pigs, those rats showing a decomposition of any kind, and which are unquestionably negative as far as bubonic plague is concerned, are not included in the mass inoculations. The inoculated pigs are placed in galvanized-iron receptacles, 24 inches in diameter and 24 inches high, the bottom of which is covered with sawdust. Within 1 inch from the top on the inside of the receptacle a layer of vaseline is smeared about 1 inch wide. This is to prevent any fleas that may get on the pigs from getting out of the receptacle. Any of the inoculated pigs that succumb, or show enlarged glands, are autopsied and examined for *B. Pestes*, the same as with rats described above. Those surviving are kept separate for three weeks before they are returned to stock. Occasionally when a rat, or an inoculated pig which has succumbed, shows very suspicious lesions, smears from such lesions are made on agar media, incubated at body temperature from twenty-four to seventy-two hours and examined, then transplanted on 3 per cent salt agar media, reincubated and examined for involution forms of *B. Pestes* which grow profusely on this particular kind of media.

Unless a very suspicious rat is found, which is desired to be kept for further study or confirmation of findings, the rats are knocked off the shingles and incinerated.

The diagnosis of an infected rodent is made when one or more of the following signs are found microscopically:

1. Injection of blood vessels and musculature, clearly visible in the abdominal wall.
2. Buboec in the inguinal, axillary and neck glands injected and caseous or semicaseous on section.
3. Granular liver.
4. Large dark spleen where the capsule is so tense that it seems entirely too small to hold the acutely inflamed splenic substance, or transverse scar usually due to an old infection.

5. Pleural effusion which is serious in character and copious in amount.

6. The organisms for B. Pestes found microscopically and findings confirmed by the representative of the State Health Department, Dr. R. P. Strong, and the representative of the federal government, Dr. George W. McCoy. This method of confirmation was agreed upon at a meeting of the representatives of the federal, state and city health departments.

Publicity.—Early in 1917 the Women's Municipal League of Boston inaugurated a campaign of education, the object of which was to eliminate rats by starving them out and by destroying their breeding places. This campaign was conducted with the full approval of the Health Commissioner and his Honor the Mayor, and a special feature of the campaign was the designation of February 13 as "Rat Day" for all sections of the city. On this day all householders and occupants of mercantile establishments were urged to make a special effort to catch and kill rats and take them to the nearest city yard and deposit them in receptacles provided there. The agents of the League were given permission to circularize all city departments, distributing literature to the employees, posting notices in city buildings and on other city property, and were also permitted the use of municipal buildings for meetings and lectures in regard to the elimination of rats. The School Committee was asked to urge the co-operation of all students, and so likewise were the proprietors of all large business houses and organizations enlisted in the campaign. While all this was going on the Boston Health Department was confining its efforts to trapping rats along the entire waterfront, and examining them with a view to the detection of evidence of bubonic plague infection. The Boston Health Department also contributed to the campaign certain lantern slides prepared with a view to stimulating the interest of the public in the matter of rat elimination.

Recently, through the efforts of Mrs. Albert J. Leatherbee, ratologist of the Women's Municipal League of Boston, that organization has established an information bureau at which persons desiring information relative to ridding premises of rats may obtain advice.

The Health Department has available for free distribution a pamphlet which was prepared with a view to bringing directly to the householder or occupant of any building the methods best adapted to ridding premises of rats, and to prevent an influx of rats where incipient breeding spots or places of refuge are liable to be created. Specific directions for poisoning rats with barium carbonate issued by the Bureau of Biological Survey, United States Department of Agriculture, were included in this circular, which is printed on page 135.

HOW TO GET RID OF RATS.

You will not have rats unless you feed them or provide them with shelter, or do both. If rats already infest your premises, you will not get rid of them until you have deprived them of food and of shelter, or of both.

To Stop the Food Supply.—First learn where your rats are getting the food. If they are getting it on your premises, stop their food supply.

If any kind of foodstuff, garbage or other refuse is accidentally spilled or scattered about the premises, or if any kind of foodstuff is stored as to furnish food for rats, clean up and provide better methods of food storage.

Keep garbage in tightly covered metallic receptacles.

Food placed for the feeding of chickens or other domestic animals may serve as food for rats as well; if this is the case, adopt more sanitary methods of feeding chickens or other domestic animals.

Foodstuffs that are stored on shelves where rats can go — and there are not many shelves beyond their reach — should be kept in metal, earthenware or glass containers; better even, they should be kept on inaccessible shelves and in such containers, too.

If rats are feeding upon supplies of grain or feed for horses or cattle, see that such supplies are kept in rat-tight bins or other containers, of metal, or at least metal-lined, or of concrete.

Flour and meal in bags should be placed on shelves well above the floor, so as to render such stores inaccessible to rats and so as to facilitate the catching of rats by dogs or cats.

To Close Rat Shelters and Breeding Places.—To make premises or any part of any premises ratproof, find out where the rats enter or may enter, and close up such entrances by the use of cement, concrete, wire netting or tin.*

Rats frequently enter buildings by the openings about water pipes, drain pipes, steam pipes and electric wires, and such places should receive special attention. Sometimes rats find their way in under the bottoms and by the edges of badly fitting doors or door casings; such entrances should be closed by tin or wire netting attached to the door or door frame.

Ratproofing a building may necessitate extensive reconstruction work, too elaborate to be described here, but it may often be accomplished successfully by carefully closing up the openings in the manner described above, without any considerable expenditure of money.

In the case of small buildings, setting close to the ground and without cellars, protection may be effectively provided by raising

* Old tin cans flattened out may be trimmed and advantageously used for this purpose.

the building well off the ground, on posts, and leaving a free open space beneath so as to deprive rats of their protection against dogs and cats.

Board walks, piles of lumber and accumulations of materials of all kinds each and all may afford the shelter that rats need. Board walks should be replaced by walks of cement or even of ashes. Piles of lumber and accumulations of other material should be piled high off the ground or floor so as to let in light and afford access for dogs and cats. Rats never forage far from a safe retreat.

No matter how careful you may be to avoid rats on your own premises, yet if you provide shelter and breeding places for them, rats feeding on nearby premises may resort to your property for protection against their natural enemies. Under such circumstances you manifestly will not get rid of rats until you close their runways and retreats.

Trapping and poisoning rats will have no marked effect on the number of rats on your premises so long as they are fed and provided with shelter and breeding places there.

Trapping.— If your premises are already infested with rats, trapping is a valuable supplementary measure to those named above. Either wire or guillotine traps may be used. Traps are most advantageously placed close to rat runways. They may with advantage be partly concealed by hay, wood, matting, or in some similar way. Some odorous substance different in character from the regular diet of the rat in the locality is likely to prove the best bait. Fried bacon, fish, raw meat, cheese, fresh liver, apples, carrots, corn and bread are some of the substances that may most advantageously be experimented with as bait.

Poisoning.— Poisoning is a valuable supplementary measure for premises already infested. It is practically a waste of time and money, however, to try to reduce the rat population by poisons alone, so long as an accessible wholesome food supply is provided outside of the traps. To make either poison or traps effective, the regular food supply of the rats must be cut off. Then they become hungry and tend to leave the premises, but their disappearance may be hastened by offering them poisoned food.

Phosphorus in some form is the chief ingredient of many of the rat poisons now commonly used. Because of the dangers incident to handling or mixing phosphorus, it is advisable to buy phosphorous poisons prepared, if it be desired to use poisons of that class, rather than to undertake to prepare them at home. Barium carbonate also may be used effectively as a rat poison, as described on page 137.*

* Monthly Bulletin of the Health Department, Boston, Mass., 9:134, August, 1920.

There is always danger of accidentally poisoning human beings or domestic animals by the use either of phosphorus or of barium carbonate, unless special precautions are observed to prevent it. For that reason the Health Department forbids the use of poisons for the destruction of rats on premises where foods are purchased, stored or sold. In the case of poisons containing phosphorus there is, too, danger of fire through spontaneous combustion, which must be carefully guarded against.

Dogs and Cats.—Certain varieties of dogs are good ratters and tend to drive rats from infested premises. Cats may be of some value in so far as mice and young rats are concerned, but they cannot be relied upon against full-grown rats. In connection with the destruction of rats with a view to the prevention of plague, however, it must be remembered that in the presence of plague dogs and cats used for the destruction of rats may themselves harbor temporarily the rat fleas, and may thus become the means of disseminating the very disease they are intended to prevent.

Persistence in the measures outlined above can be relied upon to relieve almost any premises of a rat nuisance and to afford protection against damage and disease.

DIRECTIONS FOR POISONING RATS WITH BARIUM CARBONATE.

ISSUED BY THE BUREAU OF BIOLOGICAL SURVEY, UNITED STATES
DEPARTMENT OF AGRICULTURE.

Rats vary their diet according to the season and local conditions and for this reason trials should be made to find what baits they will eat at any particular time or place. One bait from each of the three following classes should be treated with barium carbonate, thus making up three separate kinds of poisoned bait.

KINDS OF BAITS.

Meats.—Hamburg steak, sausage, fish, fish offal, crab meat, fresh liver, broken fresh eggs, bacon.

Vegetables and Fruits.—Cantaloupe, apple, tomato or cucumber, in thin slices; green corn, cut from cob; banana, boiled carrot, or baked sweet potato, mashed.

Other Foods.—Toasted bread, cheese, rolled oats, cereals, peanut butter.

TREATMENT WITH BARIUM CARBONATE.

Mix barium carbonate thoroughly through the soft baits with the hands or with a spoon in the proportion of one part barium carbonate to four parts of bait. Add water when necessary to make them moist.

Sift barium carbonate over the sliced baits and rub it into them with fingers or knife.

DISTRIBUTION OF PREPARED BAITS.

A teaspoonful, or small portion, of each of the three separate baits should be set in runways or other places frequented by rats. Set groups of these three baits on strips of paper or board at intervals of 10 to 20 feet.

For any uneaten bait, substitute on the following night another from its class. If none are eaten, substitute an entirely new series. Continued to set poison at frequent intervals until all rats disappear.

To Set Poison in Poultry Inclosures.—Over the poison bait place a small box with holes of 2-inch diameter at each end and then over the small box place a large box with holes of 2-inch diameter at each side. The bait should be very wet or of such consistency that the rats cannot drag it from under the boxes.

GENERAL RULES.

Remove so far as practicable all accessible food before poison is used.

All baits must be fresh and of good quality.

Premises should be inspected each day to remove dead rats and to pick up and destroy uneaten baits.

CAUTION.

Keep barium carbonate out of reach of children and irresponsible persons and from domestic animals and fowls.

ANTIDOTE FOR BARIUM CARBONATE.

Give an emetic of salt, mustard and water, followed by Epsom salts or Glauber's salts. Call a physician or veterinarian as the case may require.

NOTE.—The use of considerable quantities of barium carbonate is essential, say one part of barium carbonate to four parts of bait. Of course with this as with any other poison, nuisance may result from the putrefaction of the dead rats, and if they die in inaccessible places considerable annoyance may follow.

During the year just passed the department discussed the rat situation in several issues of the "Monthly Bulletin," stressing the importance of public co-operation in the matter of rat prevention, urging ratproofing in all new construction as an economic saving, and endeavoring to keep before the people of Boston the desire of the health authorities to receive co-operative assistance from each and every individual so that Boston might do its utmost to prevent the introduction of bubonic plague into the city.

Information as to Experiences of other Communities.—In 1919

the Health Commissioner sent to thirty-one North American cities and the Canal Zone a special letter asking for copies of laws, ordinances and regulations in force designed to bring about the discovery of plague-infected rats, the limitation and ultimate extermination of all rats, and for copies of such laws and regulations as were in force to bring about ratproofing of buildings. The letter also asked for a statement of the organization in the service of the city, including cost and work accomplished with reference to rat elimination. Replies were received from 19 cities, but 15 of those had done nothing in the way of plague prevention work, except observations as to shipping such as were prescribed by federal quarantine regulations, nor did these cities have any municipal ordinances in the nature of plague protective measures, although some reported desultory rat trapping along the waterfront. San Francisco, Calif., and New Orleans, La., were among the cities sending replies, and each of these cities, having been through actual plague experience, had municipal ordinances requiring buildings of every description to be made ratproof, requiring protection against the attraction of rats by food supplies, garbage, manure, etc., and requiring traps to be set on all premises and freshly baited twice a week. In Los Angeles, Calif., it was learned that dependence was placed on state laws to regulate the matter of ratproofing. The building regulations of the Canal Zone contain rigorous ratproofing provisions for all new construction. Philadelphia showed the most in the way of public interest in antirrat measures, as, in spite of the fact that no ratproofing ordinances were enacted at that time, noteworthy efforts had been made to encourage voluntary ratproof construction and the destruction of rats. Boston's Building Code requires ratproof construction of cellars of all new construction, and also requires all openings, except doors and hatchways, in such buildings to be completely screened in metal.

Regulations.— On April 1, 1920, with the idea in mind that the greatest danger from the introduction of plague into the City of Boston lay along the waterfront at which point infected rats were most likely to arrive, the Health Commissioner, under the general authority conferred upon him by law in connection with the examination of all causes of sickness within the city or on vessels within the harbor, passed the regulation appended below relative to the restriction of rats.

REGULATIONS PROMULGATED UNDER SECTION 122 OF CHAPTER 111 OF THE GENERAL LAWS BY THE HEALTH COMMISSIONER ON APRIL 1, 1920.

Regulations for the Restriction of Rats.

1. The owner, agent, master and consignee of any vessel which is lying at any wharf within the limits of the City of Boston shall take such measures as

may be necessary to prevent, and shall prevent, any garbage, offal or other refuse which may furnish food for rats from being thrown overboard from such vessel or from being deposited on or about any wharf, except in ratproof, covered metallic receptacles, and shall take such measures as may be necessary to keep such receptacles covered and cared for, and shall keep such receptacles covered and cared for, at all times so as to prevent rats from gaining access to their contents.

2. No owner, agent, master nor consignee of any vessel, and no owner, agent nor superintendent of any wharf shall deposit or store, or permit to be deposited or stored, or to accumulate, on or about any wharf, or in or about any building adjacent thereto, subject to his control, any foodstuff, refuse or other material, in such manner as to furnish a food supply or breeding place for rats, or otherwise than may in any instance be prescribed by the Health Commissioner or his legal representative; and the owner of every wharf shall make provision, subject to the approval of the Health Commissioner, for the prompt and regular removal of all garbage, offal or other refuse from the wharf and land or premises adjacent thereto under his control.

3. In case any vessel shall come to a wharf in the City of Boston from a port reported by the United States Public Health Service as infected or possibly infected with the plague, for the purpose of discharging or taking on passengers or cargo, the master of such vessel, and the owner, the agent and the superintendent of any wharf at which such vessel may lie shall observe the following conditions:

The vessel shall be kept breasted off at least four feet from the cap sill of the wharf.

All lines leading from the vessel to the shore shall be so guarded by effective rat guards or other devices as to prevent rats from reaching the shore by means of such lines. All freight gangways leading from the vessel to the wharf or shore shall be removed and kept down when not actually being used for the loading or discharge of cargo. Passenger gangways shall be removed when not kept constantly lighted and guarded so as effectually to prevent rats from reaching the shore by this means.

If it shall come to the knowledge of the owner or superintendent of the wharf, or of the master or chief officer of a vessel, that rats are reaching the shore in cargo that is being unloaded, he shall immediately report the fact to the Health Commissioner of the City of Boston; and the owner and superintendent of the wharf and the master and chief officer of the vessel shall make such arrangements with the employees under their control and with the United States customs officers as will insure the prompt reporting to the said owner, agent, master or chief officer of the fact that rats are so being brought ashore with the cargo.

A true copy:

Attest:

S. L. MALONEY, *Secretary*.

S. L. MALONEY, *Secretary*.

Conferences.—On June 9, 1921, under the joint auspices of the Boston Health Department and the Committee on Metropolitan Affairs of the Boston Chamber of Commerce, a conference with the Surgeon General of the United States Public Health Service was held

in the reading room of the Chamber of Commerce building. This conference was attended by members of the Boston Health Department, Boston Building Department, Boston City Council, members of the State Department of Public Health, Public Health Committee of the Massachusetts Legislature, representatives of the Harvard Medical School, health departments and commercial organizations of cities and towns of Massachusetts, and by representatives of various civic and trade organizations. The purpose of the conference was to ascertain the best procedure in certain methods of plague prevention; such as systematic trapping and examination of rats for traces of bubonic plague; ratproofing of new building construction and new wharf construction; regulations regarding control of garbage disposal, and education of the public toward extermination of rats. The conference was well attended, and after talks on pertinent subjects by representative speakers the conference was thrown open to limited general discussion.

A direct outcome of the meeting of civic and trade organizations and health officials held on June 9, 1921, as above, was the formation in December of that year of a so-called New England Committee on Plague Prevention and Rodent Control by the president of the Chamber of Commerce under authority from the conferees.

The members of the committee represented the civic, commercial and sanitary interests of New England, and the personnel was originally as follows: Dr. William C. Woodward, Health Commissioner of the City of Boston; Mr. Bentley W. Warren, Boston Chamber of Commerce; Mrs. Richard P. Strong, National Civic Federation, New England Division; Mrs. William H. Goodwin, Women's Municipal League of Boston; Dr. Richard P. Strong, Harvard Medical School; Mr. W. C. Gray, Massachusetts Real Estate Exchange; Mr. Sol Pincus, New England representative, United States Public Health Service; Dr. Thomas Tetreau, Department of Public Health, Portland, Me.; Mr. Irving S. Watts, Portland Chamber of Commerce; Mr. Edwin Shattuck, New Bedford Board of Commerce; Mr. James N. Buffington, Fall River Chamber of Commerce; Mr. Waldo E. Clarke, New London Chamber of Commerce, and Dr. John T. Black, State Department of Public Health, State of Connecticut. The purpose of this committee was outlined in "Current Affairs," the official publication of the Chamber of Commerce, to be the study of the situation regarding the bubonic plague danger and the health and economic damages caused by rats, to determine what was necessary to be done and how best to do it, paying particular attention to the practicability and expediency of joint

action by the sanitary, commercial and civic interests of New England seaport cities and towns looking toward more effective preventive measures.

The first meeting of this committee was held in January, 1922, and the second in June of the same year, with a third meeting in December. Dr. Francis X. Mahoney represented the Health Department of Boston on the committee at the two latter meetings, as Dr. William C. Woodward resigned as Health Commissioner of Boston in February, 1922.

At the first meeting of the committee, with Dr. William C. Woodward as temporary chairman and Mr. Ellerton J. Brehaut, Boston Chamber of Commerce, as secretary, Mr. Sol Pincus of the United States Public Health Service presented the plague situation as observed by the service. Mr. Pincus went into detail as to the discovery of plague infection in various cities of the United States and the cost of preventive measures in connection with the plague in those cities of the United States in which it existed. A discussion was had on the introduction of the plague by means of infected rats and the primary importance of preventing an invasion of infected rats from incoming vessels to harbor ports or wharves, by fumigating the vessels, and by regulations as to dockage of ships. The attitude of the federal government as represented by the Public Health Service with respect to plague preventive measures was presented, as was also the need for co-operative assistance by local communities in the way of routine trapping and examination of rats and effective ratproofing ordinances applicable to buildings. At this meeting also an executive committee was appointed to which any matters not sufficiently important for the general committee could be referred, and in the latter part of 1922 Dr. Allan J. McLaughlin, United States Public Health Service, accepted the chairmanship of this executive committee.

Educational campaigns to influence ratproofing of buildings were started as a result of subsequent meetings of the executive committee and in furtherance of such campaigns the official publication of the Chamber of Commerce of Boston, "Current Affairs," was used as a medium for the presentation of the necessity for such preventive measures, because this publication reached those vitally interested in industrial and economic conditions surrounding them. Articles appeared in this publication from time to time on the subject of ratproofing as indicated later in this sketch of work attempted and accomplished.

The Boston Health Department has given publicity from time to time to the need for co-operation by the public in the matter of prevention of rat nuisance or invasion, through the "Monthly

Bulletin" of the department, and through articles specially written for the Chamber of Commerce trade paper. The Committee on Metropolitan Affairs of the Boston Chamber of Commerce has commented editorially on the rat situation as follows:

**BOSTON CHAMBER OF COMMERCE.
COMMITTEE ON MUNICIPAL AND METROPOLITAN AFFAIRS.**

The Rat and the Bubonic Plague Menace.

The Boston Chamber of Commerce, through its Committee on Municipal and Metropolitan Affairs, and the Health Department of the City of Boston, will call a conference of commercial and civic organizations and health departments of Massachusetts seaport cities to discuss measures for the prevention of the bubonic plague. The conference will be held in the reading room of the Chamber of Commerce Building next Thursday, June 9, at 2.30 P. M.

The Chamber and the Health Department have been fortunate in securing Surgeon General Hugh S. Cumming of the United States Public Health Service, who will lead the discussion. Dr. Cumming is thoroughly conversant with the situation on the bubonic plague in all parts of the world and will bring to the conference the benefits of his study of world conditions and of his actual experience in combating the disease.

Public health officials are alarmed at the rapid spread of the bubonic plague, both in Europe and on this continent.

At the special session of the Legislature in 1920 an appropriation of \$5,000 was granted the State Department of Public Health for the systematic trapping and examining of rats on the waterfronts of Massachusetts seaports in order to discover whether the bubonic plague existed among the rat population. This amount was expected to be sufficient to carry on the work until the regular session of 1921, when it was expected that a larger appropriation might be secured.

At the regular session just closed, the State Department asked for an annual appropriation of \$20,000 with which it was intended to conduct a complete survey. However, owing to the strict economy which was observed in state appropriations, the request was refused.

The State Department is thus compelled to call in its field force and to discontinue the survey entirely. Massachusetts seaports are now left without this means of protection against the bubonic plague.

The withdrawal of the survey force by the state opens the question whether coast cities and towns should endeavor to carry on the work by local effort, or by such co-operative methods as may be devised.

Inasmuch as the plague first finds its way into a new locality by way of afflicted rats from ships of foreign ports, and is transmitted from rats to humans, it is essential that this survey be taken as the first precautionary measure. A considerable period of time exists between the presence of the disease among rats and the transmission to human beings. If a rat is found which is afflicted with the plague, intensive efforts can be made to localize the area in which the rat was discovered and to conduct a thorough campaign of extermination so that the plague can be stamped out entirely before it reaches human beings.

The discovery of the bubonic plague among human beings in Boston might result in rigorous restrictions on the port by the Public Health Service of the United States Government. The complete severance of commercial relations by rail and by water and the wholesale replacement of waterfront construction might be necessary.

Aside from the question of local surveys of the rat population, the conference will also consider other methods of plague prevention work, such as ratproofing of buildings, effective regulations regarding garbage disposal, and education of the public toward extermination of rats.

Persons interested in this general problem in connection with the bubonic plague are invited to be present at the meeting at the Chamber headquarters.

In "Current Affairs" of the Boston Chamber of Commerce, January 22, 1923, an article on "Ratproofing of Buildings; An Economic Necessity and a Plague Preventive Measure," by Dr. Francis X. Mahoney, Health Commissioner of Boston, was also published as follows:

Bubonic plague, or otherwise the old-time "black death," is primarily a rat disease which is spread to human beings by the fleas from sick or dead rats. By good fortune Boston has thus far escaped the plague, but during the last twenty-five years many cities all over the world have been called upon to do something to stop epidemics of this disease which were killing their people and paralyzing their business and commerce. Time after time experience has demonstrated that the only way to stop the bubonic plague from killing human beings was to stop the disease among the rats, and that the only way to stop the disease among the rats was to destroy a very large proportion of the rat population. It was further found that the only way the rat population could be appreciably diminished was to shut off their food supply and deprive them of suitable breeding places and refuges. In other words, it was found necessary practically to so rebuild whole cities as to build rats out of existence.

To say nothing of indirect losses in business and commerce, the direct cost to a city of an outbreak of bubonic plague is enormous. Within a few months after the plague broke out in New Orleans the amount that private property owners had been required to pay to ratproof their buildings has passed the \$10,000,000 mark and the rebuilding work that has since been carried out had scarcely begun. When the plague broke out in Galveston a few years ago the federal and state officials did not wait for leisurely ratproofing by property owners but simply demolished buildings which were serving as a refuge or feeding place for rats and ripped out floors and walls indiscriminately wherever it seemed advisable to facilitate general measures for the destruction of rats. Within a few weeks after the plague was discovered in Galveston it was estimated that one twenty-fifth of the entire floor area of the city had been torn out and the owners left to rebuild in a ratproof manner at their own expense. This is what awaits Boston if the plague breaks out here, and Boston probably will stand for it, too, just as Galveston did when the city found that cessation of business and commercial relations with the rest of the world is the alternative.

An outbreak of the plague in any city today is not to be feared because of the deaths it will cause, but as a commercial calamity. For years the Boston Health Department has been urging the business interests of Boston to adopt measures which will not only serve to mitigate such a calamity should it come but in the meantime will prove a good paying investment. From estimates based on surveys by government departments it seems safe to assume that there are as many rats in Boston as human beings and that each rat destroys property to the value of about \$2 annually, or, in other words, it costs about \$1,500,000 each year to support Boston's rat population.

As a result of the experience of the world in fighting the plague during the past twenty-five years, the cheapest and most effective way of ratproofing a

building of any type of construction has been satisfactorily worked out and the federal government stands ready to furnish definite information on the subject. It is remarkable how reluctant property owners and builders are to avail themselves of this information. We have had owners of buildings whose property was being destroyed by rats appeal to the Health Department to show them how to get rid of the rats. When we have showed them that they were troubled with rats because they were feeding all the rats in the neighborhood and have pointed out how the rats could be effectually shut out of the building by a little simple ratproofing, the cost of which would not exceed the value of the foodstuff the rats were destroying in a month, we have often found this advice discarded in favor of efforts to keep out rats by animal enemies or poison, with only temporary success at the best. The Health Department is continually being obliged to threaten bakeries in the city with prosecution for maintaining a nuisance because we find it otherwise impossible to get them to expend for the effectual ratproofing of a bakery an amount of money no greater than the value of the foodstuff the rats were destroying in a week.

While a great deal of effective and highly profitable ratproofing of old buildings can be done at a very small cost, it is, of course, impracticable to insist, in the absence of the plague, on a general ratproofing of old buildings in Boston. It will be bad enough to have to do this when the plague comes. But there is no earthly reason why ratproof construction should not be considered by property owners and builders when designing new buildings if the cost is not going to be thereby appreciably increased. Furthermore, it is to be remembered that ratproof construction always means increased fire protection for a building and its contents even if it does not involve actual fireproof construction.

In August, 1921, the United States Public Health Service called a conference at Galveston, Texas, to discuss ways and means by which the American coastal cities might be protected from an invasion of plague. The Mayor of Boston assigned the Health Commissioner, the Building Commissioner and the Deputy Health Commissioner in charge of the Laboratory Division to participate in this conference and obtain such information as would aid Boston in protecting its waterfront from invasion by infected rodents. A thorough study was made of the methods carried out in the various southeastern cities, such as, Galveston, Beaumont, Port Arthur and New Orleans. Actual visits were made with the rat trappers and wrecking crews so as to obtain first-hand information as to their methods of ridding an infected port of rats. The Deputy Commissioner in charge of the Boston Health Department Laboratory spent most of his time in the various laboratories of the above-named cities autopsying rats, carrying out such cultural work as was in use at that time, and also visited the isolation hospitals in these cities where the human cases of plague were under treatment. In cities like St. Louis, Indianapolis, Baltimore and Philadelphia visits were made for the purpose of obtaining such information as was there available as to their methods of procedure in conducting rat campaigns.

Summary.— This presentation of the efforts put forth in

Boston as a means towards assisting in the freedom of the American coast from rat infestation is written with a view to placing comprehensively on record, publicly, the interest as a public health function, locally, that the Boston Health Department has taken with respect to the rat situation, and the methods used in attempting to forestall a possible plague epidemic that would work serious hardship upon the people of Boston, individually, collectively and economically.

Fortunately, to date there has been no alarming experience so far as possible plague infection is concerned, but when it is considered that Boston's ancient waterfront affords ample opportunity for rats introduced into the city through the Port of Boston to find shelter and breeding places, it may be said without ostentation that in some measure, at least, credit is due the agencies of the Health Department in the endeavors made with a view to limiting the rat population, to exterminating the rodents where possible, to drive them from their shelters, to starve them out by destroying or preventing them from gaining access to sources of food supply by protective methods in connection with garbage and waste disposal, and to educating the people of Boston to the realization of the danger that would accrue as a result of any laxity on their part or the part of officials with respect to rat nuisances. In great measure also is credit due to the civic agencies interested in Boston's welfare for their co-operative assistance in the destruction and elimination of rats.

Generally it can be said that the persuasive powers of public and private health agencies have instilled in the minds of builders, contractors, engineers, and others interested in building construction, as well as in the minds of owners of building structures, that rat-proofing as an economic measure when new construction is undertaken will eventually result in a financial saving because of the practical impossibility for rats to gain access to such buildings, and cause the damage that it is only too well known they can occasion in buildings that are not ratproof. If Boston has succeeded in developing a tendency toward voluntary ratproofing, where none has been undertaken originally, it will be readily believed that expenditure of time and money and effort in the past to create such a tendency will have been well warranted, and that the experience gained to public health information will be valuable as a practical reference.

We note with sorrow the death of Dr. Hermann M. Biggs, State Commissioner of Health, New York. Doctor Biggs passed away on June 28 at his home on West Fifty-eighth street, New York, N. Y., from broncho-pneumonia.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of the June survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands In One Cubic Centimeter
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.36	3.65	75
Anderson, Oscar A.....	12.44	3.78	81
Antetomasso, Peter	11.97	3.55	107
Barden, R., Creamery Company.....	13.64	4.83	596
Barron, Clarence W.....	13.90	4.75	5
Barry, M. F.....	12.28	3.63	254
Bemis, Henry E.....	12.01	3.53	46
Bergmann, John H.....	12.63	3.78	47
Bolio, Mary J.....	13.19	4.10	35
Bowditch, E. F., Estate.....	12.25	3.65	531
Brandley, T. J. & P. J.....	12.22	3.60	12
Brandon Farms Milk Company.....	12.24	3.58	436
Brookdale Creamery.....	12.40	3.70	58
Burns, James.....	12.22	3.56	44
Casey, James D.....	11.98	3.48	288
Cashin, James F.....	12.31	3.75	80
Chapin, George L.....	12.32	3.65	19
Childs Brothers.....	12.19	3.56	45
Clark, Levi.....	12.05	3.56	34
Cohen, Benjamin.....	12.31	3.55	13
Corkery, John H.....	12.08	3.41	38
Creedon & Crowell.....	12.44	3.77	12
Cummings, F. S., Company.....	12.17	3.60	21
Cunningham, Paul.....	12.67	3.91	23
Cusick, William H.....	12.36	3.70	22
Deerfoot Farms Milk Company.....	12.85	4.06	14
Denehy, Timothy.....	12.45	3.85	465
DiMauro, Gaetano.....	12.36	3.76	434
Driscoll, William B., Company.....	12.41	3.66	12
Duggan Brothers.....	12.42	3.75	91
Edgerly, Frank S.....	12.21	3.66	88
Elm Spring Farm Milk Company.....	12.36	3.75	27

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands In One Cubic Centimeter.
	Per Cent.	Per Cent.	
English, John.....	12.22	3.57	466
Ferguson, Malcolm D.....	12.24	3.66	523
Floyd Milk Company.....	12.23	3.70	240
Fortune & Allen.....	12.30	3.65	16
Garvin, Charles E.....	13.24	4.70	10
Giroux, J. E., & Co.....	12.03	3.55	91
Griffin, Joseph L.....	12.41	3.73	12
Griffin, Thomas J.....	12.13	3.61	79
Gushee, W. S. & C. W.....	12.27	3.60	17
Hagar, J. M., & Sons.....	12.49	3.71	49
Hancock, T. G., & Co.....	12.42	3.85	90
Herlihy Brothers.....	12.62	3.90	116
Hickey, Martin J.....	12.50	3.65	55
Holden, John E.....	12.54	3.80	34
Hood, H. P., & Sons, Inc.....	12.46	3.70	157
Hurley, Michael F.....	12.34	3.76	132
Jones, W. T., & Co., Inc.....	12.54	3.86	90
Kendall Brothers.....	11.89	3.45	58
Kennedy, Robert J., Jr.....	12.28	3.75	188
Kingston, Samuel.....	13.41	4.28	44
Klaw & Freeman.....	12.78	3.80	19
Knapp, George J.....	12.30	3.70	480
Lang, Michael.....	11.96	3.42	80
Larkin, Patrick.....	12.52	3.78	92
Larsson, Charles.....	12.37	3.70	22
Lesser, Joseph.....	12.11	3.48	190
Lincoln Farms, Inc.....	13.12	4.23	845
Lubin, Felix.....	12.34	3.68	31
Lyndonville Creamery Association.....	12.64	3.71	35
Magee, Nellie A.....	12.36	3.50	22
Manning, Peter E.....	11.86	3.55	828
Maple Farm Milk Company.....	12.29	3.63	206
McAdams, John F.....	12.40	3.68	73
McKernan, John.....	12.56	3.80	40
Moore, Peter.....	12.32	3.75	833
Morgan, George D., & Sons.....	13.30	5.05	13
Munchbach, George.....	12.44	3.66	136
Nelson & Bennison.....	12.72	4.13	71
Newton & Pope.....	13.11	4.46	409

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands In One Cubic Centimeter.
	Per Cent.	Per Cent.	
Noble, W. F., & Sons, Inc.....	12.58	3.86	23
Pond, Harvey T.....	12.29	3.66	71
Raycraft, Benjamin F.....	12.15	3.63	22
Robbins, Frank E.....	12.44	3.81	21
Robinson, Albert J.....	12.64	3.88	99
Robinson, James A.....	12.25	3.66	48
Runkle, J. C.....	12.87	4.15	61
Schuste, Adam.....	12.32	3.56	28
Seven Oaks Dairy Company.....	12.28	3.68	59
Shick, Jacob.....	12.31	3.70	580
Smith & Lynch.....	12.38	3.78	74
Somerset Farms Milk Company.....	12.59	4.01	18
Sterling Farms Milk Company.....	12.30	3.73	178
Stone, H. L.....	12.20	3.55	54
Stuart, Wallis E.....	12.17	3.50	13
Sullivan, John D.....	12.86	4.20	23
Sullivan, John L.....	12.33	3.61	30
Turner Centre System, Inc.....	12.67	3.86	116
Upland Farms Milk Company.....	14.03	4.90	385
Vartanian, Setrag.....	12.14	3.58	26
Walker-Gordon Laboratory Company.....	12.14	3.56	9
Ware, George H.....	12.46	3.76	35
Warren, Cornelia.....	13.16	4.33	24
Weiler, E., & Sons.....	12.19	3.61	35
Werner, Ferdinand.....	11.96	3.58	55
Westwood Farm Milk Company.....	12.31	3.71	37
White Brothers.....	12.29	3.73	127
Whiting Milk Companies.....	12.24	3.63	197
Whittemore, Warner D.....	12.28	3.75	33
Wiswall, Granville A.....	12.12	3.51	59
Wittenberg & Recks.....	12.31	3.66	53
Woodland, Charles.....	12.16	3.50	35

LEPROSY AMENABLE TO TREATMENT.

Leprosy is in a measure amenable to treatment, says United States Public Health Service. During the last ten years (1912-21) a considerable percentage of the lepers segregated at the Kalihi Hospital near Honolulu and on Molokai Island have been paroled; that is, they have been released as being "not a menace to the public

health," but have been required to report for examination at certain intervals which vary with the individual case. Of those paroled about 13 per cent have relapsed and have returned to segregation; but about one fourth of these were later paroled for the second time. In all, 242 lepers were paroled; thirty-one relapsed and seven of these were later paroled. Ten were completely released from parole.

The chance of arresting the disease decreased with the length of time that it had been allowed to go without treatment unless this period was seven years or more. Apparently patients who survive without treatment for seven years possess powers of resistance that slightly increase their chances for marked improvement under treatment.

Those who desire it are treated with chaulmoogra oil and its derivatives.

The parole system was begun in 1912 and has worked admirably. Those paroled appear to have told their friends that the conditions existing at the hospital were good; and the mere fact that they had been released has shown that segregation might lead to cure and not to lifelong confinement, as it almost invariably did previous to 1912. As a consequence many lepers, instead of concealing the disease up to the last possible moment (and thereby spreading it through the community), are now surrendering of their own accord and taking treatment. This earlier surrender and earlier treatment hasten the degree of improvement that will secure parole and will later, perhaps, complete release. About 70 per cent of these who have been paroled were in segregation for less than two years.

CHAIN STORE MILK.

NAME OF DEALER.	Supplied by.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.46	3.88	299
The Cloverdale Company.....	Turner Center System, Inc.,	12.48	3.78	249
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company.	12.42	3.92	41
Co-operative Grocery Company,	J. M. Hagar & Sons.....	12.54	3.76	14
Economy Grocery Company....	Turner Center System, Inc.	12.52	3.76	20
First National Stores, Ltd.....	Turner Center System, Inc..	12.60	3.87	423
M. O'Keeffe, Inc.....	J. M. Hagar & Sons.....	12.49	3.75	89
Morgan Brothers Company.....	Whiting Milk Companies...	12.19	3.58	210
Rose Tea Company.....	H. P. Hood & Sons, Inc....	12.28	3.63	412
M. Winer Company.....	M. Winer Company.....	12.54	3.70	52

PRENDERGAST PREVENTORIUM NOTES.

The Prendergast Preventorium for Children of the Boston Tuberculosis Association has been temporarily expanded. With the cessation of the work at the Boston schools the teaching in the new schoolroom at Prendergast Preventorium ceased also, and the executive committee, finding that it had this fine room at its disposal, voted to use it for a dormitory during the summer months. A kind friend has secured the loan of the necessary cots, and a dozen more little girls are now having the benefit of outdoor life. The number of children now at the camp is thirty-four. The children have been sent to the camp from some one of the clinics of Boston, and are in all cases pre-tuberculous girls with an adult consumptive in the family at home.

Such has been the success of the "Modern Health Crusade" in the schools of Boston that the executive committee of the Boston Tuberculosis Association, the organization that is introducing the crusade here, has decided to give a full-time worker to introduce it and advise with reference to its development.

The Boston Tuberculosis Association has received a bequest of \$5,000 from the estate of the late Mrs. Charles A. Cummings of Chicago. Mrs. Cummings has been a contributor to the funds of the association since its establishment more than twenty years ago.

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, JUNE, 1923.

SYPHILIS.

Current cases under investigation June 1, 1923	51
New cases assigned during the month	30
Total	<u>81</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	20
Further treatment unnecessary	0
Not located:	
Search abandoned	19
Under investigation July 1, 1923	42
Total	<u>81</u>

GONORRHEA.

Current cases under investigation June 1, 1923	129
New cases assigned during the month	82
Total	<u>211</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	28
Further treatment unnecessary	2
Not located:	
Search abandoned	85
Fraudulent use of name	1
Under investigation July 1, 1923	95
Total	<u>211</u>

SUMMARY.

Current cases under investigation June 1, 1923	180
New cases assigned during the month	112
Total	<u>292</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	48
Further treatment unnecessary	2
Not located:	
Search abandoned	104
Fraudulent use of name	1
Under investigation July 1, 1923	137
Total	<u>292</u>
Form letters mailed to above patients	103
Form letters unclaimed, returned from post office	23
Form letters accepted by patients	80

DANGER IN "SALT-RISING" BREAD.

A commercial bread starter, recommended for the purpose of securing a constant inoculum of a gas forming bacterium in the preparation of salt-rising bread, was found by Koser to contain organisms of the *bacillus welchii* type in numbers of about 1,000 per gram. The addition of this "starter" to milk, followed by an over-night incubation in a warm place, as called for in the directions for use, results in a light, frothy, gaseous mass. The predominating organism was found to be *B. welchii*, which was present in numbers from 1,000,000 to 100,000,000 per gram of material. Loaves of salt-rising bread prepared by several bakeries using the starter in

question contained spores of *B. welchii* in considerable numbers. Small quantities of bread from the interior of the loaves yielded the gas bacillus in almost every instance, in decided contrast to the results secured from the interior of the loaves of ordinary yeast bread in which the Welch bacillus was found rarely. Several cultures of the organism isolated from the starter and from the baked loaves were found to be in agreement in morphologic, cultural and biochemical properties with a strain of *B. welchii* obtained originally from a wound and also with the published descriptions of this bacillus. The cultures obtained from the bread possessed only a low grade of virulence for guinea pigs, while the type *B. welchii* originally obtained from a wound and used for comparison was highly pathogenic. All available evidence indicated that the *B. welchii* incorporated in the "starter" is the active agent concerned in the preparation of the salt-rising bread. This was substantiated by the fact that on substitution of an authentic *B. welchii* strain (with a history of wound infection for the strain) in the bread starter, loaves of salt-rising bread were prepared comparable to those obtained by the use of the starter.—[Review in J. A. M. A. of an article in J. Infectious Diseases, March, 1923.,

MORTALITY AND MORBIDITY REPORT, DISEASES DANGEROUS TO THE PUBLIC HEALTH, FOR BOSTON AND SURROUNDING CITIES AND TOWNS, FOR THE FOUR WEEKS ENDING SATURDAY, JUNE 30, 1923:

CITY OR TOWN.	Estimated Population.	Total Deaths, All Causes.				Death Rate per 1,000.		Deaths Under 1 Year.		Deaths Under 5 Years.		DIPHTHERIA.		SCARLET FEVER.		LOBAR PNEUMONIA.		PULMONARY AND LARYNGEAL TUBERCULOSIS.		MEASLES.		WHOPING COUGH.		TYPHOID FEVER.	
		Deaths.		Cases.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.		Deaths.	
Arlington.....	22,000	12	7.1	1	1	...	...	5	...	10	...	1	...	4	...	9	...	2	...	...	...	...	...	...	...
Belmont*.....	12,082	7	10.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Boston.....	764,017	816	13.9	107	166	13	232	1	267	26	22	49	153	4	663	6	93	...	6	...	...	...	...	...	6
Brookline.....	39,548	35	11.5	2	2	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Cambridge.....	111,444	107	12.5	13	16	1	8	1	49	3	9	7	12	...	67	...	36	...	...	...	...	...	...	...	...
Chelsea.....	43,108	40	12.1	4	5	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Everett.....	41,000	21	6.7	1	1	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lynn.....	105,000	65	8.0	9	10	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Malden*.....	51,547	34	11.4	3	3	1	12	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Melrose.....	18,964	15	10.3	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Quincy.....	50,000	41	10.7	3	4	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Somerville*.....	97,000	49	8.8	2	4	2	13	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Watertown.....	22,500	5	2.9	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Newton.....	47,674	21	5.7	2	2	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals.....	.....	1,268	11.8	149	216	17	314	3	440	33	53	71	260	7	1,074	6	201	1	14	...	...	...	...	...	...

* For three weeks only.

HEALTH DEPARTMENT.

Tel. Congress 5100.

Commissioner of Health	1109 City Hall Annex.
Secretary	1108 City Hall Annex.
Medical Division	1110-11 City Hall Annex.
Health Unit	17 Blossom street.
Detention Hospital	Southampton street.
Bacteriological Laboratory	1101 City Hall Annex.
Food Inspection Division	1001A City Hall Annex.
Inspection of Foodstuffs	1001A City Hall Annex.
Examination of Milk and Vinegar	1104 City Hall Annex.
Inspection of Dairies	1001G City Hall Annex.
Brighton Abattoir	Market street, Brighton.
Sanitary Inspection Division	1001C City Hall Annex.
Abatement of Nuisances	1001B City Hall Annex.
Examination of Gas Fitters	1001C City Hall Annex.
Vital Statistics Records and Accounts Division	1112 City Hall Annex.
Permits for Burial	1112 City Hall Annex.
Superintendent of Peddlers	27 North Grove street.

Office Hours.— General offices on the eleventh floor of the City Hall Annex, 9 a.m. to 5 p. m., excepting on Saturday afternoons, Sundays and holidays, for the transaction of business not specified below.

Room 1112, City Hall Annex, eleventh floor, open from 5 p. m. to 10 p. m., and Sundays and holidays from 10 a. m. to 10 p. m., for the reporting of cases of communicable diseases, the issuing of burial permits, the receiving of cultures and widals, and the receiving of complaints.

The distribution of vaccines and antitoxins will be from the laboratory between the hours of 9 a. m. and 6 p. m., excepting Saturday afternoons, Sundays and holidays.

Wassermann Tests, Etc.— The bacteriological laboratory is prepared to examine free of expense blood specimens by the Wassermann test for syphilis. Tests are made each Tuesday, Wednesday, Thursday and Friday. Blood is drawn from patients in the laboratory each Monday, Tuesday, Wednesday and Thursday from 2 to 4 p. m.

Dark Field Illumination.— The bacteriological laboratory is prepared to examine free of expense at the request of physicians lesions suspected of being syphilitic, by dark field illumination. Tests are made every afternoon between 2 and 4 p. m., except Saturdays, Sundays and holidays.

SUMMARY OF THE WORK, JUNE, 1923.

BUREAU OF ADMINISTRATION.

	June	May		June	May
Visits to conventions	1	1	Bids accepted	2	1
Hearings authorized	1	0	Protest petitions received:		
Prosecutions ordered	23	56	Against cemetery	0	1
Undertakers' applica-			Against rendering		
tions approved	0	1	plant	0	1
Dump applications ap-			Special drafts	0	1
proved	7	6	Regulations made	1	0
Lodging houses certified,			Personnel:		
Offensive trades ap-			Appointments	7	7
proved	1	0	Permanent	1	4
Reassigned	0	1	Probationary	3	3
Vacate notices	0	1	Provisional	1	0
Public sewer authorized,			Temporary	2	0
Legal notices	357	473	Transfers from de-		
Cemetery approved	0	1	partment	1	1
Antitoxin station ap-			Transfers to depart-		
proved	1	0	ment	0	0
Orders	3	0	Leaves of absence	1	3
Opinions from Law De-			Retirements	1	1
partment:			Stable application ap-		
Burial permits	1	0	proved	1	0
Alcohol licenses	1	0			

LICENSES, PERMITS, ETC., ISSUED.

	June	May		June	May
Burial permits	984	1,094	Denatured alcohol li-		
Disinterment permits	0	57	censes	11	49
Milk licenses	956	1,640	Manicure-massage:		
Peddlers' licenses:			Granted	233	522
Granted	133	216	Grease	1	2
Refused	1	0	Dumps	2	6
Hen licenses granted	59	125	Manure	1	1
Hen licenses revoked	0	1	Sundry	0	2
Hen location disap-			Offensive trade	0	9
proved	0	1	Stable permits:		
Permit for roosters			Extended	1	0
granted	0	1	Revoked	1	0
Stable permit granted					
provisionally	1	0			

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	June	May		June	May
Visits by medical inspec-			Vaccination certificates .	43	208
tors	2,071	2,878	Cases brought to Boston		
Deaths investigated	15	17	for treatment	93	95
Vaccination	188	637	Antitoxin administered .	34	37

NURSING SERVICE.

	June	May
Communicable disease visits	5,409	4,934
Babies visited, first visit	575	66
Revisits	845	1,146

HEALTH UNIT (Blossom Street).

	June	May
Health Department proper:		
Vaccinations	47	696
Vaccination certificates issued	63	123
Antitoxin injections	0	5
Children examined for camps and day nurseries	21	1
Visits made by medical inspector	46	0
Dental clinic:		
Number of treatments	1,174	2,110
Number of dismissals	133	274
Number of children treated	377	646
Cases visited by nurses:		
Medical	208	258
Babies	259	0
Complaints of unsanitary conditions	20	16
Visitors:		
Resident	6	4
Nonresident	7	1
General:		
Persons applying for information	404	471
Community Health Association:		
(a.) Baby Hygiene Association and Health Department		
Nurses:		
New babies admitted	46	33
Homes visited by nurses	444	513
Conferences:		
Number held	7	7
Attendance	252	228
(b.) Instructive District Nursing Association:		
Visits made by nurses	1,955	2,093
Boston Dispensary:		
Calls by district physician	39	31
Boston Sanatorium:		
Calls by nurses in district	1,057	979
Jewish Welfare Center:		
Nutrition conferences:		
Number	4	4
Attendance	135	130
Nutrition classes:		
Number	4	4
Attendance	54	56

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	June	May
New reports	2,989	3,153
Stores inspected	3,841	4,266
Sanitary defects remedied	197	190
Complaints at office	87	76
Referred to Sanitary Division	21	30
Milk applications approved	166	218

	June	May
Peddlers:		
Applications for licenses approved	137	228
Vehicles inspected and approved	802	649
Court cases	2	0
Fines	\$20	0
Laboratory Examinations:		
Bacteriological	2	0
Chemical	2	4

CONDEMNATIONS.

WITHOUT REQUEST.

Bread	211 pounds	Kidneys	6 pounds
Plucks	196 pounds	Lobster	250 pounds
Livers	41 pounds	Loganberries	8 quarts
Hearts	6 pounds	Mutton	104 pounds
Veal	10,850 pounds	Olives	20 gallons
Cantaloupe	25 crates	Pigeons	10 pounds
Chestnuts	9,375 pounds	Pork	136 pounds
Eggs	11 dozen	Poultry	337 pounds
Frogs legs	46 dozen	Strawberries	53 crates
Hamburg	6 pounds	Turkeys	79 pounds
Grape fruit	15 boxes	Miscellaneous groceries, 36,000 pounds	

LIVE STOCK INSPECTION (Brighton Abattoir).

	June	May		June	May
Cattle inspected	4	9	Parts condemned	192	3,304
Calves inspected	489	1,839	Animals condemned	2	13
Swine inspected	3,718	4,962			

DAIRY DIVISION.

	June	May		June	May
Total inspections	1,108	995	Without milk rooms	360	170
Dairies inspected	686	463	Inactive	26	60
Scoring above 50 *	373	297	Total cattle inspected	113	6,227
Scoring below	313	166	Bacteriological examina-		
With milk rooms	326	293	tions	113	146

* Passable mark.

BUREAU OF MILK INSPECTION.

	June	May		June	May
Chemical inspection of:			Bacteriological examination of:		
Milk	1,277	1,494	Milk	665	855
Vinegar	20	26	Ice cream	145	119
Butter	6	0	Court cases	20	18
Miscellaneous	6	10	Fines	\$265	\$240

SANITARY INSPECTION.

	June	May		June	May
Original inspections	1,664	1,627	Vacate notices served	0	3
New reports	2,505	2,770	Complaints	989	1,218
Reinspections	6,735	10,203	Court cases	23	39
Legal notices served	359	481	Fines	\$20	\$7.20

BACTERIOLOGICAL LABORATORY.

	June	May
Examinations for diagnosis and release:		
Diphtheria	1,457	1,694
Tuberculosis	237	299
Typhoid	45	50
Gonorrhea	588	793
Gonorrheal Ophthalmia	44	43
Syphilis	1,109	1,185
Other examinations	32*	37
Bacteriological examinations of milk	665	855
Bacteriological examinations of ice cream	145	0

* Malaria, 11; dog for rabies, 3; smear for Vincent's Angia, 1; genito-urinary tuberculosis, 4; dark field examinations, 4; blood culture, 1; cheese for poisons, 1; olives for para typhoids, 7.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING JUNE, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	7	14.00
Seven days or less.....	4	8.00
Eight to fourteen days, inclusive.....	4	8.00
Fifteen to twenty-one days, inclusive.....	1	2.00
Twenty-two to thirty-one days, inclusive.....	3	6.00
WITHIN FIRST MONTH.....	19	38.00
Within second month.....	2	4.00
Within third month.....	3	6.00
Within fourth month.....	3	6.00
Within fifth month.....	3	6.00
Within sixth month.....	—	—
Within seventh month.....	1	2.00
Within eighth month.....	2	4.00
Within ninth month.....	—	—
Within tenth month.....	1	2.00
Within eleventh month.....	—	—
Within twelfth month.....	—	—
WITHIN FIRST YEAR PRECEDING DEATH.....	34	68.00
Within second year.....	8	16.00
Within third year.....	1	2.00
More than three years.....	7	14.00
Totals.....	50	100.00

VITAL STATISTICS, JUNE, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING JUNE,
1923, WITH COMPARATIVE FIGURES FOR JUNE, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	832	752	+80	12.96	11.81	+1.15
Nonresidents deducted.....	667	632	+35	10.39	9.92	+ .47
By Age:						
Under one year.....	101	91	+10	1.57	1.43	+ .14
One year to four years, inclusive.....	52	37	+15	.81	.58	+ .23
Sixty years and over.....	275	278	—3	4.28	4.37	— .09
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, So Called:						
Apoplexy.....	55	62	—7	.86	.97	— .11
Arterio-sclerosis.....	27	33	—6	.42	.52	— .10
Heart disease.....	134	117	+17	2.09	1.84	+ .25
Nephritis, chronic.....	50	41	+9	.78	.64	+ .14
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,551	1,573	—22	24.15	24.71	— .56
b. Registered stillbirths.....	57	45	+12	.89	.71	+ .18
Stillbirths per 1,000 births and stillbirths,				35.45	27.81	+7.64
c. Deaths of mothers from causes incident to childbirth.....	10	10	—	.15	.16	— .01
Deaths of mothers per 1,000 births and stillbirths.....				6.22	6.18	+ .04
d. Deaths of children in first year of life...	101	91	+10	1.57	1.43	+ .14
Deaths in first year per 1,000 live births,				65.12	57.85	+7.27
VIOLENCE:						
Accidents.....	49	35	+14	.16	.55	+ .21
Homicides.....	2	4	—2	.03	.06	— .03
Suicides.....	6	13	—7	.09	.20	— .11
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	9	5	+4	.14	.08	+ .06
Broncho-pneumonia.....	23	18	+5	.36	.28	+ .08
Cancer.....	102	82	+20	1.59	1.29	+ .30
Cirrhosis of the liver.....	4	6	—2	.06	.09	— .03
Diabetes mellitus.....	8	16	—8	.12	.25	— .13
Diarrhoeal diseases, children under two years of age.....	9	8	+1	.14	.12	+ .02

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON, — Concluded.

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
		1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:							
Anterior poliomyelitis.....	Cases...	1	—	+1	.015	—	+.015
	Deaths..	—	—	—	—	—	—
Cerebro-spinal meningitis.....	Cases...	3	4	—1	.04	.06	— .02
	Deaths..	3	1	+2	.04	.01	+.03
Diphtheria.....	Cases...	250	195	+55	3.89	3.06	+.83
	Deaths..	13	7	+6	.20	.11	+.09
Influenza.....	Cases...	—	2	—2	—	.03	— .03
	Deaths..	—	—	—	—	—	—
Measles.....	Cases...	786	719	+67	12.24	11.29	+.95
	Deaths..	4	4	—	.06	.06	—
Pneumonia (lobar).....	Cases...	37	31	+6	.57	.49	+.08
	Deaths..	33	4	+19	.51	.22	+.29
Scarlet fever.....	Cases...	311	124	+187	4.84	2.03	+2.81
	Deaths..	2	4	—2	.03	.06	— .03
Tuberculosis (pulmonary).....	Cases...	160	179	+19	2.49	2.81	— .32
	Deaths..	55	63	—8	.86	.99	— .13
Tuberculosis (other forms).....	Cases...	29	48	—19	.45	.75	— .30
	Deaths..	10	14	—4	.16	.22	— .06
Typhoid fever.....	Cases...	6	9	—3	.09	.14	— .05
	Deaths..	—	1	—1	—	.01	— .01
Whooping cough.....	Cases...	99	57	+42	1.54	.89	+.65
	Deaths..	6	1	+5	.09	.01	+.08

This table includes all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated populations for July, 1923, and 1922, based upon the federal census of 1920, have been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

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MONTHLY BULLETIN
HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
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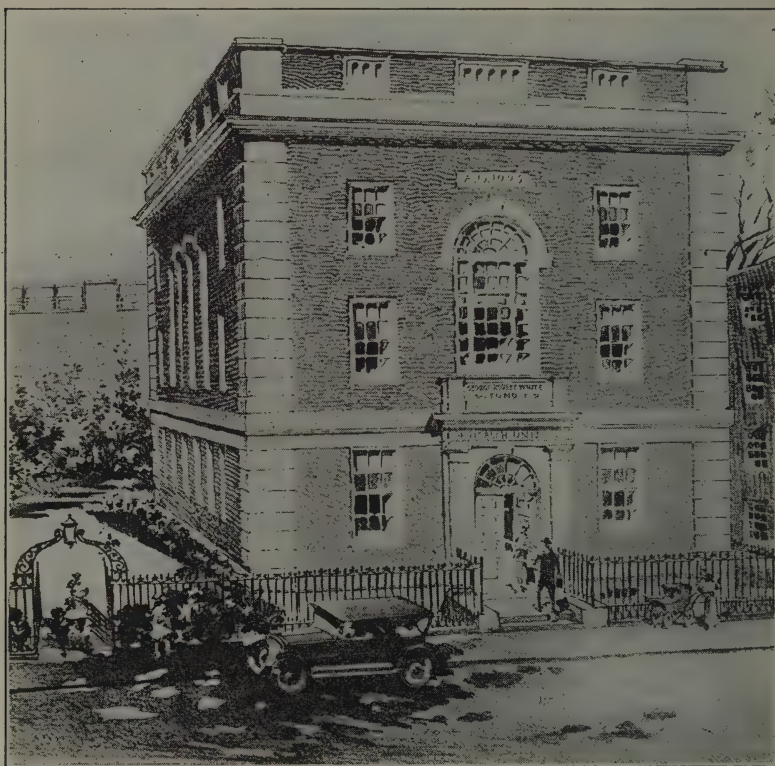
THE NEW HEALTH UNIT IN THE NORTH END.

In spite of a delay occasioned by protests from North End residents that the site originally selected for the erection of a health unit in that section of Boston was not situated so as to be of the utmost practical service to the residents there, the construction of the unit at a new location will be soon under way, and the unit established at Baldwin place and North Margin street.

The plans for the erection of the first health unit in the North End were drawn up and the contracts for the work awarded in February last by the trustees of the George Robert White Fund. The original location selected was on the site of the Old Harbor Police Station, Commercial and Battery streets, containing 5,323 square feet, but was objected to on the ground that it was on the edge of the district. After much careful consideration, the trustees finally voted on June 12 to approve the site occupied by the Beth Israel Synagogue on Baldwin place, together with estates 41-45 North Margin street as a proper location for the health unit. No difficulty is expected in the matter of passing of title to the properties named, and the plans originally determined upon by the trustees will be carried out without material alteration.

The new location comprises 14,868 square feet of land and besides being larger and more centrally located and thus more convenient to the people in the district, it will provide an open-air park for the use of the people of the North End.

The establishment of the new health unit, now under way serves to bring to mind the fact that it was during the previous administration of the present Mayor of Boston, and, incidentally, the previous administration of the present Health Commissioner, also,



that the first health unit in Boston was established at 17 Blossom street, West End. The success attendant upon the activities of the first health unit, the beneficial results obtained, the good accomplished among the residents of that district, was the paramount reason for the suggestion by Mayor Curley that the George Robert White Fund be made available for use in the institution of new health units in other sections of the city. The George Robert White Fund, a permanent charitable trust fund in property of considerable value willed to the city, provides that the net income thereof is to be used for "creating works of public utility and beauty, for the use

and enjoyment of the inhabitants of the City of Boston." His Honor the Mayor is keenly interested in problems affecting the health of the inhabitants of Boston, and feels that any measures adopted to bring home directly to the people the lesson of health is effort expended in the right direction. It is with this thought in mind that the first suggestion offering itself to his consideration as to the best possible use to be made of the income of the White Fund was the establishment of further health units in Boston, particularly in those sections that are thickly populated, and where the cosmopolitan character of the residents is such that health instruction and education will be productive of the best results. The general scheme of operation of the old health unit, to which will be added the latest ideas on such features of public health administration, will be carried out in the new health unit, and in those hereafter established. Social and public welfare organizations will be given opportunity to place representatives at the new unit, co-operating departments of the city whose interests parallel those of the Health Department will have representation, and all activities directed and co-ordinated under the supervision of a delegated authority acting for the Health Commissioner.

Care of children, instruction to mothers, supervision of the conditions under which the people of the district are living, observations as to general sanitary aspects of the district, with particular attention directed to a campaign of education and instruction in the best methods of promoting health and keeping it, describe generally the scope of the activities carried on. Co-operation is absolutely necessary from the people themselves, and experience gained in the operation of the first health unit has designated the best courses to pursue to obtain this co-operation with the least possible difficulty. There is no doubt that the good results obtained already in this manner in one section of the city will be duplicated in the North End section of the city, and there is every reason to believe that the further experiences gained through the operation of the new unit will make the establishment of other units in other sections of Boston more advantageous to the people.

CARBONATED NONALCOHOLIC BEVERAGES.

A conference of all persons licensed by the Health Commissioner to manufacture or bottle certain nonalcoholic beverages was held by the Health Commissioner on July 10, 1923. This conference was held at this particular time because of the approach of the expiration of the license year, so that all licensees might be impressed with the

importance of certain phases of the law and regulations relative to this business, the securing of compliance with which had occasioned some difficulty. The conference was well attended and those present evinced a desire to co-operate in all respects with the Health Department. A résumé of discussions that took place will be of practical value here as a reminder to those interested.

The use of descriptive words to designate whether or not the product is a pure fruit compound or a synthetic compound is an essential part of the manufacture of beverages. It is a violation of law not to label as "imitation" synthetic soda compounds so that the customer may understand that he is getting an imitation. As an example of the use of descriptive words on the labels, the attitude of the United States Department of Agriculture is best calculated to serve as a guide. The term "orangeade," for instance, is not considered by the Department of Agriculture to describe properly a mixture of fruit acid, sugar and acid and artificial color, and the use of such a mixture must be indicated by a satisfactory label. The Department goes so far as to refuse to recognize the use of the word "artificial" as an adequate descriptive designation of the use of such a mixture, but insists upon the use of the word "imitation" on the labels. This is a purely technical insistence, but since it is uniformly prescribed compliance therewith is no more burdensome on one manufacturer than on another. All are expected to observe the requirement. However, manufacturers using real crushed fruit are not required to label their product as an imitation, even though they put in orange or other fruit coloring matter, because the ingredients are pure.

The use of saccharin in the process of manufacture of beverages is absolutely prohibited by law. Saccharin has been prohibited in all foods by the United States Food and Drugs Act since 1912. Its constant use in quantities over three-tenths of a gram per day is liable to impair digestion and its substitution for sugar reduces the food value of the product. Extreme care should be exercised by manufacturers of beverages in this connection, so that no such violation of law will be traced to them.

In the labels used on bottles, the size of the type in letters used to describe the ingredients used in the beverage and the size of the type in letters used in the word "imitation," where such description of the true nature of the contents is required by law, should be the same. The word "imitation" should not be inconspicuously placed on the label in the lower corner, so as not to be easily noticed, but should be as prominent as the statement of ingredients and thus give the buyer an opportunity to observe the kind of purchase he is making. In order to insure compliance with the law in this respect,

and so that all manufacturers will be subjected to the same supervision, the labels used on all bottles will be examined by the Health Department before the license or renewal thereof is granted. The particular reason for insistence upon the use of type in the word "imitation" of the same size as the type used in the description of the other ingredients is to prevent the possibility of deceit or intent to deceive the purchaser by a mere literal compliance with the law as to labeling. The product must be truly labeled.

Some doubt seems to exist as to the necessity for purchasers from a wholesaler to declare the presence of benzoate of soda on their label when the wholesaler has declared on the labels in his description of ingredients used the presence of benzoate of soda. Failure on the part of the purchaser from such a wholesaler to do so renders the purchaser amenable for law violation. If the labels on the product thus purchased do not carry along the description originally given by the wholesaler, the purchaser is not offering a *bona fide* article, and, as stated above, the product must be truly labeled.

The regulations of the Department of Public Health prohibit any person suffering from any communicable or contagious disease from being employed in or about the place where beverages are manufactured or bottled, or where mineral or spring waters are bottled. The regulations go so far as to prohibit the employment of a person in whose family a case of contagious disease exists, until quarantine of the sick person has been removed. The prohibition in these latter cases, however, may be suspended if the local board of health issues a certificate in writing that no danger of public contagion or infection would result from the employment of such a person. Discussing this phase of the regulations to be followed by manufacturers or bottlers of beverages, it may be stated that the employer need not actually know that there is in his employ a person ill with a contagious disease, but if the employer merely suspects the presence of a contagious disease in an employee it is the duty of the employer to notify the Health Department immediately. This is extremely important to prevent the possibility of the spread of contagion likely to result if such a person is not placed under observation or quarantine at once.

The co-operation of all manufacturers or bottlers of carbonated nonalcoholic beverages is urged as an aid in the protection of the public health by a strict observance of all health requirements pertaining to the business in which they are engaged. Premises should be kept at all times in a clean, sanitary manner, because insanitary, careless operation of the establishment will show itself in the product offered to the public, and the duty of the Health Department compels drastic measures to be taken to prevent the consumption by the

people of beverages that are offered to the public in an unclean, unwholesome condition. A little care on the part of manufacturers or bottlers will insure the output of a product safe for use as a beverage, and observance of the law requirements in the description of ingredients used will declare to the consumer whether or not a pure fruit compound or a synthetic compound is offered for sale. Comply with the laws and health requirements and thereby protect yourself and those to whom your product is dispensed. Be a factor for good in the community.

MOTHELCRAFT CONFERENCE IN BOSTON.

At the coming convention in Boston of the American Public Health Association, during the week of October 8, the Massachusetts Federation of Women's Clubs through its Committee on Child Welfare and Mothercraft, will hold a mothercraft conference, as one of the features of the great week of presentation of health work. The date will be Wednesday, October 10 at ten o'clock in the morning, and for the purpose the Exeter Theater cordially tenders its facilities with its compliments, testifying to its appreciation of modern health movements. The speakers at the conference will include Dr. Richard A. Bolt, general director, American Child Health Association; Dr. Francis X. Mahoney, Health Commissioner of Boston; Dr. John B. Hawes, 2d, president of the Boston Tuberculosis Association; Prof. C. E. Turner of the Massachusetts Institute of Technology; and Dr. F. Konitza, president of the Vatra, the Albanian Association of America, who will outline health work in his native country.

Among the many important health movements that have originated in Boston, mothercraft has proved to be one of the most important. It was originated and has been developed by Miss May Bliss Dickinson, who has been assisted in the work by the women's clubs of the state, and now stands as a factor to the better health of the people that has been recognized all over the United States and in four of the five great continents of the earth.

Mothercraft realizes that nearly half the babies in the world are dependent for their care most of the time on elder sisters, very often hardly more than babies themselves.

Under such conditions it is true that the health of the babies, in whom the countries of the earth are dependent for future strength, is during most important periods of life practically in the hands of children, who do not understand the principles of such care, and whose knowledge is acquired in the school of experience at the expense of the infants whom they tend.

Mothercraft seeks through interesting and reasonable instruction especially adapted to girls of school age, but available for older girls and for mothers, to present to the pupils fundamental principles in personal hygiene and home sanitation and practical lessons in the care of babies. Miss Dickinson has developed these factors to the future health of the nation through simple lessons with that



MOTHERCRAFT EXHIBIT—HOW VARIOUS FEATURES OF MOTHERCRAFT WERE PRESENTED AT THE HOUSE BEAUTIFUL EXPOSITION, IN BOSTON, IN MAY, 1923.

great feature of modern educational methods, demonstrations and practical work by the pupils themselves. A text book has been prepared, "Children Well and Happy," a mothercraft doll has been devised, which may be used in washing and dressing exercises, and other bits of "apparatus" prepared so that mothercraft has all the interest that attaches to a study in the laboratory, utilizing the great principle of "teaching students by making them do things themselves."

Since no health work can go farther than the public opinion of its friends will support it, Miss Dickinson has supplemented the work in schools, settlement houses, and other groups of students by educational methods adapted to the larger citizenship. These include illustrated lectures, which are available for club meetings and gatherings of adults, and a motion picture, splendidly prepared in the best studios of the West Coast, focussing delightful environment, scenic advantages and the charming personalities of skilled actors and actresses, upon the health lessons that are needed by those who are to care for babies.

In all parts of the earth the custom of having the elder sisters care for babies while the mothers are otherwise employed, is common. A collection of photographs in the possession of Miss Dickinson is testimony to the universality of the practice, and there is much of interest in the different methods of doing this, from the fur-clad infant of icebound Alaska to the naked baby of Hindustan or Africa. From the nature of the case, therefore, mothercraft has an international value, and not only into most of the states of the Union has it been introduced but far-away China has asked for it with permission to make a translation into ideographs of the text-book. Continental Europe is well represented in the group of foreign countries utilizing the methods of Massachusetts in educating children and even grown-ups in mothercraft, while to the South it has found a firm foothold not only in continental countries, but among the scattered island of the Antilles.

For the first time the Massachusetts Federation is presenting its conference in connection with a great national convention, but the visit of the American Public Health Association to Boston affords the opportunity to do this. It will be a week of meetings of health associations and committees such as this city has never before seen. As an accompaniment and to reach thousands of citizens who could not be cared for at the meetings, the great Boston Health Show will be in progress, and at this it is expected the mothercraft exhibit, similar in character to that presented at the recent Home Beautiful Exposition, will carry the message home to the attendant crowds of the prime necessity that exists for teaching little girls the essentials of health and the care of babies, and the means that mothercraft affords of meeting and fulfilling these needs.

ICE CREAM CONE SEIZURES.

About two years ago some three million ice cream cones manufactured by a local concern were seized and condemned as being unfit for human consumption. The manufacturers of these cones sub-

sequently went out of business. During the middle of July, this year, a food inspector of the Health Department discovered large quantities of cones which he recognized as the same product as those condemned two years ago. The proprietor of the store in which these cones were found could not identify the salesman, but a little detective work in other stores in the vicinity elicited this information, and finally two local dealers were located who had purchased the cones from one of the largest jobbers in Maine. It appeared that this Maine firm had purchased their stock originally from the Boston manufacturer who had gone out of business after the wholesale seizure and condemnation of his product by the Boston Health Department. The entire shipment from Maine consisted of about 2,000 boxes of one hundred cones each, and all were extremely rancid. The date of manufacture was fixed as occurring five years ago. The shipment in question was in violation of United States Food and Drug Law and the federal authorities were accordingly notified.

The discovery of these cones speaks well for the vigilance of the inspector, whose memory of department activities in food inspection served as a sure guide to the source of this shipment of cones. The eating of ice cream cones by children especially makes it very desirable that a close supervision be kept on the production of such a food article. The department is therefore particularly gratified that its efforts resulted in the removal from the market of the unconsumed balance of this shipment of cones. The reference to the federal authorities will undoubtedly prevent any further shipments into this state, but the observations of the Health Department in food matters will continue as usual.

ELIMINATION OF OLD BUILDING STRUCTURES.

The Health Department for many years as one of its functions in connection with the inspection of sanitary conditions throughout the city has engaged in observation of old building structures which are considered to be a menace to health and safety in the community where located. During the period of war-time activity and post-war adjustment of conditions to normalcy, it was a difficult task to reconcile the necessity for the demolition of old buildings which, in ordinary times, would be considered to be unavoidable action, and the extreme hardship imposed upon home seekers who were compelled to live in the less habitable or desirable structures because of the decrease in the building of dwellings. Except in rare instances, where no amount of repair would place a building in condition suitable for habitation, old buildings were not ordered demolished. Repairs were ordered to be made so as to make them suitable for living pur-

poses. Commencing in 1922, however, the ever-increasing danger to health and safety which these old structures manifested made it advisable to undertake a survey to determine the necessity for destruction. Twenty-five buildings and parts of buildings were demolished without expense to the city as a result of this survey.

Observations have been continued during this year, and in the middle of this month the Fire Commissioner, the Building Commissioner and the Health Commissioner made a tour of the city with a view to recommending the demolition of old buildings deemed to be dangerous to health and safety. Twenty-six such structures were found to be in such a state of poor repair, and such a menace to health and danger as a fire hazard that they were recommended for demolition. Formal orders are to be issued soon to this effect upon the owners, directing removal of the offensive structures within a reasonable time. In the event that the owners object to the order of removal, it is within the power of the Health Commissioner to demolish the buildings at the expense of the city, in order that proper sanitary condition of the city may be maintained so far as possible.

Such drastic measures may seem unnecessary, but it is to be remembered that most of the structures are vacant, or but partly occupied, and of such poor return value as a monetary investment that owners do not suffer much loss. Further, the buildings are usually demolished by professional building wreckers for salvage, or for a nominal charge, so that the expense attendant upon removal is not ordinarily a hardship. The benefit to the community, to the people in it, to the adjacent properties, and the added breathing spaces in the sections affected, has an offset value from the standpoint of greatest good to the greatest number that detracts from any supposed hardship imposed by the action. As a health measure, the action is well advised.

BASEMENT STORAGE OF FRUIT AND VEGETABLES.

Complaint received from residents of a section of the West End about nuisance and discomfort caused them by the practice of peddlers in storing vegetables in basements of dwellings was given attention during the month. These peddlers were found to be very careless in the disposition of vegetable "culls" and garbage. A thorough inspection was made, with co-operation from the local police officers and marked improvement made. The Health Department contemplates formal regulations to govern this situation so that better control of the activities of this class of food vendors may be possible, and so that storage of fruit and vegetables may be properly supervised.

CHILD HYGIENE DIVISION.

With a view toward increasing the activity and expanding the scope of child hygiene work in the department the Child Hygiene Division has been rejuvenated by the appointment of a deputy commissioner, in charge of the same. For several years this work has been under the supervision of the medical division, but the growing interest in this matter throughout the country has demanded a fuller exploitation of the functions of such a division in this city.

A corps of nurses have been appointed to carry out intensive field work. Districts showing excessive infant mortality and high birth rates have been selected and nurses concentrated in these districts so that the latter may be under controlled supervision. The names and addresses are taken from birth reports sent to the City Registrar. The nurse definitely instructs the mother in all methods pertaining to baby hygiene and feeding. Breast feeding is urged whenever possible, and all possible methods are used to render it so. Demonstrations and instruction as to the care and feeding of infants is likewise given and followed up so as to make it positive that the mother thoroughly understands. Babies under our supervision are visited every two or three weeks, and in the case of illness, necessary visits, often daily, are made. Nurses are required to keep in close contact with baby stations, hospitals, clinics, etc., where babies requiring treatment can be cared for. In all instances strong emphasis is laid upon the value of the family physician, and patients referred to him, but where this can not be brought about the aid of the above clinics, etc., is invoked.

CHRONIC BRONCHITIS AND OTHER NONTUBERCULOUS PULMONARY AFFECTIONS.

BY EDWARD O. OTIS, M. D.

This is the second of a series of monthly bulletins to be sent to the medical profession of Boston by the Boston Tuberculosis Association on the subject of the diagnosis, treatment and other matters connected with the tuberculosis problem. Other subjects to be taken up will include:

Facilities for the Hospital Treatment of Consumptives in the City of Boston.

Dispensaries for the Diagnosis and Treatment of Tuberculosis in the City of Boston.

Diagnosis and Treatment of Tuberculosis in Childhood.

Nontuberculous Lung Diseases Simulating Tuberculosis.

Sunlight Treatment and its Uses.

Nonpulmonary Tuberculosis and its Treatment.

General Principles on the Home Treatment of Tuberculosis.

Tuberculosis in Industry.

Outline of the Campaign Against Tuberculosis in the City of Boston.

Mycotic Infections of the Lungs Simulating Tuberculosis.

Prodromal Symptoms of Tuberculosis.

Chronic bronchitis is a common disease in this climate. Although when once established we cannot cure it we can do much, however, to palliate it. It is the cause of much of the so-called "winter cough" of elderly persons, recurring winter after winter in this climate, and disappearing or greatly lessening in the warm months of the year. Its etiology is varied. It may be the result of repeated attacks of acute bronchitis. It may be one of the degenerative changes occurring in old age. Cold and changeable weather is an exciting cause. Rapid changes of temperature, as going from a heated room to the winter temperature out of doors, a change of thirty or forty degrees in a moment at least, is likely to aggravate an existing chronic bronchitis. Mouth breathing out of doors in cold weather is probably another exciting cause. Most often, however, it is secondary to some infection of the upper respiratory tract.

How much any micro-organism has to do with the cause of chronic bronchitis is still an unsolved problem. The number of bacteria isolated from the sputum of a case of chronic bronchitis are many, sometimes one and sometimes another predominating, but we cannot attribute the disease to any single organism. Chronic bronchitis often masks pulmonary tuberculosis, so that in every case careful and repeated examinations of the sputum should be made.

As time goes on the winter cough also continues during the summer, and other serious conditions arise; the heart feels the strain and begins to fail, giving rise to various circulatory disturbances. No one can cough for years without impairing the elasticity of the lung structure and hence emphysema is almost a constant accompaniment of chronic bronchitis.

The prominent symptoms are cough, often of a wheezing character, sometimes dry and hard, sometimes soft with profuse excretion, dyspnea on exertion, and in the later stages without exertion; and more or less cyanosis. The general health may not be particularly impaired, or at least for a while, so that one may continue his accustomed occupation for years without any great discomfort.

The physical signs are few. There is usually normal resonance, hyper-resonance if emphysema exists. The breath sounds are normal, but are diminished with prolonged expiration if again emphy-

sema is present. There may be a variety of dry rales all over the chest, sonorous and sibilant, or there may be no rales at all.

The most important factor in treatment is a careful regulation of the life and habits of the patient, in regard to food, rest, exercise and the avoidance of fatigue. Of course, if a change of climate is possible from the winter of the North to the mild climate of the South, this will do more to alleviate the condition than anything else, but few can do this.

The drug treatment of the disease varies according to the character of the secretions and underlying causes. Iodide of potassium in some form and steam inhalation of various medicaments such as compound tincture of benzoin are most helpful. Autogenous vaccines are of little or no value. Digitalis is indicated when the heart is laboring. One should be cautious in the use of opium, using only the milder derivatives such as heroin or codein to allay excessive cough.

Bronchiectasis.

The physical signs in bronchiectasis often closely simulate tuberculosis, particularly when cavities exist, and indeed both conditions often occur together. What differentiates bronchiectasis from tuberculosis, however, besides the absence of tubercle bacilli, is the character of the cough, which is paroxysmal with a large amount of expectoration, often the absence of severe constitutional symptoms and the presence of clubbing of the fingers. The physical signs may be those of an advanced tuberculosis, but the symptoms do not correspond to that condition. Therapeutic treatment can only palliate this condition. Postural drainage, teaching the patient how to empty out his lung night and morning is of the greatest value. Surgery is still a last resort measure.

Lung Abscess.

Abscess of the lung is difficult of diagnosis unless it is near the surface. A careful history and X-ray is the greatest help in determining the true condition. A septic condition along with signs and symptoms referred to the lungs, appearing soon after a tonsilectomy or other operation of the nose and throat suggests abscess. Sometimes the abscess will empty itself through a bronchus; at other times it has to be drained from the outside. Many abscesses cure themselves spontaneously. When once the abscess becomes chronic only a radical surgical operation offers the chance of a permanent cure.

Pulmonary Syphilis.

In syphilis of the lungs the physical signs and X-ray picture are often indistinguishable from pulmonary tuberculosis, although in

syphilis the region near the hilus is oftenest involved. A positive Wassermann test with a persistently negative sputum is suggestive of pulmonary lues. Pulmonary syphilis, however, is a distinctly rare complication, the diagnosis being made by the result of antisyphilitic treatment.

New Growths of the Lung.

Cancer of the lungs, either primary or metastatic, is again difficult to diagnose. If there is an accompanying pleuritic effusion the guinea pig test of the fluid may eliminate tuberculosis. A bloody fluid is always suggestive of malignant disease. The X-ray taken soon after the evacuation of the pleuritic fluid may show the tumor, and at any stage is helpful in diagnosis. The symptoms vary — a constant hacking cough may be present; there may or may not be fever; also extreme dyspnea, edema of the upper extremities and face, enlarged lymphatic glands, hemoptysis, and if the tumor is of considerable size we have extreme dullness and feeble or absent breath sounds on physical examination. A history of a previous operation for malignant disease in a patient over forty with suspicious lung signs and symptoms but sputum negative to tuberculosis suggests cancer.

Actinomycosis.

Actinomycosis of the lungs is rare but has often been mistaken for tuberculosis, or simple abscess of the lung. The examination of the fluid from an abscess when obtainable and the discovery of Ray-fungus makes the diagnosis. When there is a suggestive history, constitutional disturbance, a localized area of inflammation or fluid in the lungs, swellings about the chest and neck or else great pain, and an absence of tubercle bacilli, actinomycosis should be suspected and every effort made to discover the infecting fungus. A cure is rare.

Unresolved Pneumonia.

Unresolved pneumonia, particularly in children, may be mistaken for tuberculosis. Here again, the fact that no tubercle bacilli are found in the sputum, and that active symptoms are often absent or slight, so that the condition discovered by routine examination of the chest is evidence against tuberculosis. X-ray is of the greatest help.

Influenza.

In influenza with lung complications two things are to be borne in mind: First, what may be called influenza may be the manifestation of an active tuberculous process, and second, what seems to be an active tuberculous process, both from symptoms and physical signs, may be due only to influenza. The absence of tubercle bacilli

and the rather rapid improvement of the patient's condition with his history will generally make the diagnosis, although one may be in doubt for a while.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.27	3.63	27
Anderson, Oscar A.....	12.22	3.71	21
Antetomasso, Peter.....	12.04	3.43	40
R. Barden Creamery Company.....	13.55	4.83	142
Barron, Clarence W.....	14.26	5.15	22
Barry, Michael F.....	12.14	3.46	108
Bemis, Henry E.....	12.00	3.46	86
Bergmann, John H.....	12.42	3.71	52
Bolió, Mary J.....	13.52	4.70	6
Bowditch, E. F., Estate.....	12.01	3.45	16
Brandley, P. J. & T. J.....	12.50	3.90	129
Brandon Farms Milk Company.....	12.28	3.70	106
Brookdale Creamery Company.....	12.42	3.66	348
Burns, James.....	12.06	3.55	72
Casey, John D.....	12.06	3.48	94
Cashin, J. F., & Co.....	12.20	3.68	127
Chapin, George L.....	12.08	3.55	14
Childs Brothers.....	12.15	3.50	155
Clark, Levi.....	12.17	3.66	56
Cohen, Benjamin.....	12.27	3.72	17
Corkery, John H.....	12.25	3.53	174
Creedon & Crowell.....	12.14	3.66	28
Cummings, F. S., Company.....	12.02	3.60	19
Cunningham, Paul.....	13.46	4.50	20
Cusick, William H.....	12.06	3.50	1,387
Deerfoot Farms Milk Company.....	12.64	4.00	14
Denehy, Timothy.....	12.26	3.67	194
DiMauro, Gaetano.....	12.14	3.53	50

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Driscoll, William B., Company.....	12.13	3.60	14
Duggan Brothers.....	12.38	3.66	55
Edgerly, Frank S.....	12.25	3.70	29
Elm Spring Farm Company.....	12.44	3.86	88
English, John.....	12.62	3.86	145
Ferguson, Malcolm D.....	12.14	3.45	659
Floyd Milk Company.....	12.22	3.66	105
Fortune & Allen.....	12.28	3.70	40
Garvin, Charles E.....	13.10	4.07	15
Giroux, J. E., & Co.....	12.06	3.56	219
Griffin, Joseph L.....	12.45	3.80	17
Griffin Brothers.....	12.48	3.78	28
Gushee, W. S. & C. W.....	12.03	3.43	26
Hagar, J. M., & Sons.....	12.30	3.66	31
Hancock, T. G., & Co.....	12.17	3.60	46
Herlihy Brothers.....	12.34	3.70	32
Hickey, M. J.....	13.17	4.13	86
Holden, John E.....	12.46	3.66	188
Hood, H. P., & Sons.....	12.16	3.70	101
Hurley, Michael F.....	12.00	3.50	83
Jones, W. T., & Co., Inc.....	12.38	3.78	20
Kendall Brothers.....	12.00	3.27	55
Kennedy, Robert J., Jr.....	12.22	3.76	34
Kingston, Samuel.....	13.14	4.30	8
Klaw & Freeman.....	12.56	3.72	71
Knapp, George J.....	12.26	3.70	36
Lang, Michael.....	12.02	3.52	261
Larkin, Patrick.....	12.76	3.92	155
Larsson, Charles.....	12.08	3.46	33
Lesser, Joseph.....	12.39	3.47	33
Lincoln Farms, Inc.....	12.04	3.60	30
Lubin, Felix.....	12.15	3.58	20
Lyndonville Creamery Company.....	12.42	3.71	414
Magee, Nellie A.....	12.84	4.10	46
Manning, Peter E.....	11.73	3.40	119
Maple Farm Milk Company.....	12.23	3.68	176
McAdams, John F.....	12.32	3.66	204
McKernan, John.....	12.29	3.71	183
Moore, Peter.....	12.26	3.61	41
Morgan, George D., & Sons.....	12.99	4.75	122

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Munchbach, George.....	12.30	3.56	294
Newton & Pope.....	12.43	3.78	279
Noble, William F., & Sons.....	12.48	3.90	18
Pond, Harvey T.....	11.99	3.57	248
Raycraft, Benjamin F.....	11.98	3.42	12
Robinson, Albert J.....	12.45	3.70	31
Robinson, James A.....	12.47	3.60	390
Runkle, John C.....	12.74	4.16	12
Schuster, Adam.....	11.93	3.15	43
Seven Oaks Dairy Company.....	12.19	3.73	50
Shick, Jacob.....	12.22	3.45	462
Smith & Lynch.....	12.37	3.75	96
Somerset Farms Milk Company.....	12.98	4.21	15
Sterling Farm Milk Company.....	12.16	3.63	26
Stone, Howard L.....	12.13	3.52	169
Stuart, Wallis E.....	12.38	3.70	10
Sullivan, John D.....	12.52	3.90	64
Sullivan, John L.....	12.10	3.45	685
Turner Centre System.....	12.50	3.80	138
Upland Farms Milk Company.....	15.33	5.60	61
Vartarian, Setrag.....	11.97	3.52	24
Walker-Gordon Laboratory Company.....	12.17	3.65	6
Ware, George E.....	12.38	3.68	27
Warren, Cornelia.....	12.65	4.02	10
Weiler, E., & Sons.....	12.48	3.85	54
Werner, Ferdinand.....	12.19	3.65	52
Westwood Farms Milk Company.....	12.04	3.45	36
White Brothers.....	12.14	3.62	163
Whiting Milk Companies.....	12.08	3.41	147
Whittemore, Warner D.....	12.18	3.70	24
Wiswall, Granville A.....	12.35	3.75	54
Wittenberg & Co.....	12.41	3.73	423
Woodland, Charles.....	12.10	3.60	420

MOSQUITO BITES.

The intense itching from a mosquito bite may often be relieved by applying a drop of liquid ammonia. In the absence of ammonia pressure over the spot with a clean folded handkerchief may give relief. Resist the temptation to rub or scratch a mosquito bite. A serious infection may result.

CHAIN STORE MILK.

NAME OF DEALER.	Supplied by.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.21	3.76	56
The Cloverdale Company.....	Turner Center System.....	12.33	3.76	44
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company.	12.42	3.83	14
Co-operative Grocery Company.	J. M. Hagar & Sons.....	12.34	3.68	38
Economy Grocery Company....	Turner Center System.....	12.43	3.73	52
First National Stores.....	Turner Center System.....	12.50	3.91	112
M. O'Keeffe, Inc.....	J. M. Hagar & Sons.....	12.41	3.68	62
Morgan Brothers Company.....	Whiting Milk Companies...	12.06	3.61	38
Rose Tea Company.....	H. P. Hood & Sons, and Whiting Milk Companies.	12.22	3.78	72
Winer, Hyman.....	Hyman Winer.....	12.30	3.71	56

FOREIGN PUBLIC HEALTH VISITORS.

Instruction of the character indicated below has already come to be regarded as one of the regular functions of the Boston Health Department. Scarcely a month passes that one or more persons from some foreign country do not appear at the Boston Health Department, present their credentials and ask to be shown in detail the methods by which the various activities are carried on. Instruction of this character makes demands both on the time and patience of the officials of the Health Department but they share the belief of other municipal health officers that the time and effort spent on such instruction is in every way worth while. Besides being an expression of international comity and a reasonable act of courtesy to fellow officials or students of public health, the visits to us of keen observers of the workings of other municipal health departments is constantly bringing to us new side lights on our own local conditions and new ideas in dealing with some of our local health problems. In the course of time the Boston Health Department has evolved a regular procedure for giving to visitors who come to us for this purpose instruction and demonstration in the organization and work of the department, even to a not altogether satisfactory attempt to explain to a foreign visitor that the Boston Health Department represents the result of a process of evolution, that its organization and methods have in certain respects been determined by old legislation difficult to change and that consequently in these respects the Boston Health Department differs from the ideal modern text-book schemes for a municipal health department.

In this connection it is interesting to note that the following letter has been received from the Surgeon General and the Health Commissioner of Boston is going to co-operate as requested:

TREASURY DEPARTMENT,
BUREAU OF THE PUBLIC HEALTH SERVICE,
WASHINGTON, D. C., July 19, 1923.

DR. FRANCIS X. MAHONEY, *City Commissioner of Health*, Boston, Mass.:

MY DEAR DR. MAHONEY,—The Public Health Service has been asked to prepare the program for what has been designated an interchange visit of health officers to be held in the United States, which is being arranged by the health section of the League of Nations. Two visits of this character have already been held in European countries. It is expected that about twenty or twenty-five representative health officials and sanitarians from Europe and South and Central America will visit this country in order to observe health conditions and to study the activities of the organizations devoted to their control. Funds controlled by the health section of the League of Nations will provide for the expenses of the delegates, including personal and traveling expenses.

The course will begin on September 10, 1923. This leaves but a short time for the preparation of the program, inasmuch as it is desired to place a draft of the program and as much informative literature as possible in the hands of the participants before they leave their respective countries, in order that there may be less time lost in their orientation in the courses after arrival.

We have considered that the health activities to be observed should be classified roughly as follows:

1. Federal.
2. County or rural (southern).
3. State (southern).
4. State (northern).
5. City (small).
6. City (large).

I believe that your organization is especially well fitted to demonstrate the methods of handling public health problems under the heading "City (large)." I am therefore writing to ask that you provide as a portion of the program, a course of study of your city health organization and its activities for a party of from seven to ten experienced foreign health officers. It is requested that you personally instruct the delegates and demonstrate the items of your program, or, if this is impossible, that you detail a competent

representative to conduct this course. A period of approximately thirteen days, beginning November 11, 1923, has been allotted for this part of the course.

If, in your opinion, other agencies than the health office are performing important functions related to public health sufficiently valuable or unusually well so as to be of interest to the delegates, we would ask that you arrange with these organizations for demonstration to be included in your program. I refer to such activities as child and maternity work, medical inspection of school children, disposal of wastes, industrial hygiene and sanitation, control of diseases of animals communicable to man, etc.

This is patently an opportunity for real service in the interest of world health, and the establishment of cordial and helpful relations between earnest and capable workers in this cause throughout the world, and I most earnestly request you to accept the task.

May I not receive your prompt acceptance, and at the very earliest possible date a copy of your proposed program?

Yours very truly,

H. S. CUMMING,
Surgeon General.

REST.

To get the most out of a vacation one should have a rest as well as a change of scene and recreation. Physical fatigue whether from work or play is dangerous. Fatigue means an exhausted heart and weakened digestive organs, and it lowers resistance to infection of any sort. Many a military recruit has been physically ruined because he has been subjected to tasks involving unaccustomed physical exertion, strain or exposure by an inexperienced officer who would not be deemed competent to be entrusted with cavalry horses. Many a vacation has been spoiled by getting unusually fatigued and then over eating, and many a vacationist returns home suffering from an infection which would never have occurred had his natural powers of resistance not been lowered by general bodily fatigue.

Begin new forms of work or play moderately. Moderation in physical exertion for the first few days of a vacation will make a great difference in the actual results of the vacation. It will also make a vacation far more beneficial in its results if the daily program be arranged so as to provide a period of complete relaxation and rest, if not a nap, after the noonday meal or before the evening meal.

DEATHS AND DEATH RATES FOR CERTAIN CITIES, JULY, 1923.

CITY.	Popula- tion Esti- mated July 1, 1922. *	DEATHS DURING WEEK ENDING				DEATH RATES DURING WEEK ENDING			
		July 7.	July 14.	July 21.	July 28.	July 7.	July 14.	July 21.	July 28.
Boston.....	764,017	146	164	173	167	9.9	11.1	11.7	11.3
Bridgeport, Conn.....	143,555	18	28	30	15	6.5	10.2	10.9	5.4
Cambridge.....	110,944	24	23	21	24	11.2	10.8	9.8	11.2
Fall River.....	120,790	73	25	31	30	9.9	10.8	13.4	12.9
Lowell.....	114,423	22	17	17	20	10.0	7.7	7.7	9.1
New Bedford.....	127,542	19	21	31	25	7.6	8.4	12.4	10.0
Providence, R. I.....	241,011	53	61	43	66	11.4	13.1	9.3	14.2
Springfield.....	140,052	26	22	29	30	9.4	8.0	10.5	10.8
Worcester.....	188,449	38	36	47	43	10.3	9.8	12.8	11.7

* The populations of the cities mentioned above have not yet been changed according to the estimates as of July 1, 1923, but the rates are based on the new figures.

IMPORTANT SHORT RULES FOR THE PREVENTION OF DECAY IN TEETH AND ASSOCIATED DISEASES.*

1. *During the first two and a half years of life all starchy or sugary food (except milk) should be given in a firm or fibrous form, so as to stimulate mastication and insalivation, and thus to promote the healthy growth of the jaws and the regular arrangement of the teeth. Bread, rusks, or any other farinaceous food should never be added to or soaked in milk. Bread with crust (and butter), toasted bread (and butter), should form a considerable part of the solid part of the meals habitually given to children of this age. As the infant passes from the milk diet to the more solid diet the milk should be more and more diluted with water. During this period also the solid food should be eaten first and the milk and water taken after.*

2. *After the age of two and a half years children should always have a considerable amount of the farinaceous food in a form which will stimulate a pleasurable amount of efficient mastication. The albuminous part of their diet should also be presented in a form which will encourage mastication, e. g., boiled fish, meat, and, later, bacon. Milk or milk substitutes should be only allowed in small amounts.*

3. *The meals should be arranged in such a way that if soft,*

* Selected for use in the clinic of the Preventive Dentistry and oral Hygiene Department, Harvard Dental School.

starchy, or sugary food has been eaten, the mouth and teeth will be cleansed by food of a detergent nature taken immediately after. Thus, therefore, when sweets of any kind, *e. g.*, milk puddings, jam rolls, cake, sweet biscuits, bread and marmalade or jam are eaten, fresh fruit should be eaten afterwards.

4. *Three meals daily are to be preferred to any greater number, as the longer interval the more hygienic is the state of the mouth and stomach and therefore the more perfectly adapted for the reception of a further meal. Sweets, chocolate, or biscuit and milk should never be eaten between meals or before going to bed.*

When these rules for the prevention of decay in teeth cannot be observed, some attempt should be made with a small tooth-brush to clean the crevices of and between the teeth, after every unhygienic meal; but as this is *extremely difficult to do effectually* without injuring the teeth or gums, it is advisable to have children who are brought up in this way taken regularly to the dentist from the age of three and onwards every six months, till the teeth become crowded and irregular; thereafter the visits may require at times to be more frequent until all the natural teeth have been replaced by artificial substitutes.

Foodstuffs and Dental Caries.

Not Cleansing and Liable to Induce Dental Caries:

Farinaceous and sugary foods in general without fibrous element.

Examples: Sweet biscuits and cake; bread and marmalade; bread and jam; new bread without crust; bread soaked in milk; milk puddings; porridge and milk; preserved fruit; chocolate and sweets of all kinds; honey.

Liquids: Cocoa and chocolate.

The above foods should not be eaten except when followed by foods of the cleansing kind.

Cleansing and Preventive of Dental Caries:

Fibrous foods generally.

Examples: Fish, meat, bacon, poultry, uncooked vegetables, lettuce, cress, radish, celery. Cooked vegetables are, as a rule, cleansing but in a less degree than uncooked vegetables.

Stale bread with crust; toasted bread of all kinds; twice baked bread; pulled bread and cheese.

Savouries. Fresh fruits, especially those requiring mastication, *e. g.*, apples, fatty foods, *e. g.*, butter and margarine.

Liquids: Tea, coffee, water, also soups and beef tea.

J. SIM WALLACE, M.D., D.Sc., L.D.S.

Formerly Dental Surgeon and Lecturer on Dental Surgery and Pathology, London Hospital.

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING JULY, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	10	18.87
Seven days or less.....	7	13.21
Eight to fourteen days, inclusive.....	4	7.55
Fifteen to twenty-one days, inclusive.....	—	—
Twenty-two to thirty-one days, inclusive.....	1	1.89
WITHIN FIRST MONTH.....	22	41.52
Within second month.....	4	7.55
Within third month.....	3	5.66
Within fourth month.....	6	11.32
Within fifth month.....	2	3.77
Within sixth month.....	—	—
Within seventh month.....	1	1.89
Within eighth month.....	2	3.77
Within ninth month.....	1	1.89
Within tenth month.....	1	1.89
Within eleventh month.....	—	—
Within twelfth month.....	—	—
WITHIN FIRST YEAR PRECEDING DEATH.....	42	79.26
Within second year.....	3	5.66
Within third year.....	5	9.43
More than three years.....	3	5.66
Totals.....	53	100.01

HOW TO SAVE LIFE FROM DROWNING.

The American Red Cross through the local Metropolitan Chapter issues the following instructions on how to save a person from drowning:

When a drowned person is brought ashore, don't wait for anything. If possible, send for a physician. But get to work, at once, with your own hands.

Lay the patient on his stomach. Extend one arm directly over head. Bend the other arm at elbow, and rest patient's cheek on hand, to keep the nose and mouth off the ground and free for breathing.

Kneel, facing forward, and straddling patient's legs just forward of knees. Place palms of hands on each side of back, just above belt line, with your thumb alongside the fingers, the middle finger just

touching the lowest rib, and the tips of fingers just out of sight. With arms held straight, lean gradually forward, pressing forward, down and in on patient's back and counting slowly: one, two, three. Snap your hands sideways, off patient's back. Swing your body back, counting slowly: four, five. Rest. Straighten arms, and repeat pressure.

Three movements: Straight arm pressure, quick release, swing back. Repeat these regularly at about five second intervals, twelve times a minute. If you don't hear air drawn in when you snap off your hands, feel in the patient's mouth for obstructions such as a wad of tobacco. And unless a physician takes charge, keep up work steadily till breathing begins, and continues naturally. Then remove patient, on a stretcher and well covered, to a hospital or to his home.

Don't get discouraged. Stick to it for three, even four hours, if necessary.

SERVICE.

The inspector who is most successful is the one who tells the milk producer or milk plant operator not only that certain things should be done, but also why and how they may be done satisfactorily with the least possible expense. This is not a mere theorization, but a fact based upon the results obtained by inspectors who have used an educational system in many cities of the country, and the almost total absence of any signs of improvement in the milk supplies of other cities where the inspectors give orders without explaining why or how they should be executed.

Some inspectors may have taken up this work recently without much previous experience and so may not have the necessary information at their finger tips. Others may have been inspecting dairies for years but felt too busy to keep posted on the latest data pertaining to milk control. But neither of these classes of inspectors need remain in the class of the uninformed. The whole field of clean milk production is well covered by various books, and by publications, many of which may be secured from the state agricultural colleges and the United States Department of Agriculture.

When an inspector visits a dairy farm and finds, for instance, that a sterilizer is needed, it is an advantage for him to explain to the dairyman why sterilization is necessary and then, unless the dairyman already knows, give him information on the kind of sterilizer which will give satisfactory service at the least expense, and show him how it can be built. Good inspectors are able to give similar service on the planning and building of dairy barns and milk rooms

with special reference to sanitary requirements; and upon the planning and construction of water systems and cooling tanks.

If the inspector is unable to furnish information needed by the dairyman, he may tell the milk producer or distributor where the necessary information or help may be obtained.

By such work as this the inspector becomes an asset rather than a liability to his clientele. The dairyman will learn to come to him in time of trouble and will be glad to comply with his requests. In other words, he will have a real part in improving his community. Instead of being a person to be hoodwinked and shunned as are some inspectors who arbitrarily command without offering explanations or help, he will be received by the dairyman as a friend. He will find that his services are appreciated and that his work results in improved conditions and higher quality milk.

— *United States Department of Agriculture.*

LET 'EM COME ON.

And so the League of Nations is to send an official delegation to this great and glorious City of Boston in the fall. But let no hostiles begin to pass resolutions denouncing the incursion and pleading with our municipal authorities not to receive the gentlemen. For the delegation is merely medical, sent over by the health section of the league, and it is coming over to observe health conditions as they exist in this country. Boston, of course, could hardly be omitted.

In furtherance of the success of this visit, Surgeon-General Cummings, of the federal health service, has asked State Health Commissioner Kelley and Health Commissioner Mahoney, of Boston, to arrange a programme, so far as Boston is concerned, and we have no doubt that it will be a good one.

"This is an opportunity for real service," says General Cummings. Boston is always ready to "carry on" in that respect. — [*Boston Post Editorial.*]

CO-ORDINATED CONTROL OF TUBERCULOSIS.

The success which will attend attempts at the control of tuberculosis by preventive measures aimed at the infectious agent will depend upon our realization of the magnitude of the program required to this end, and on the thoroughness with which this program is applied. Desultory, scattered and unrelated measures will accomplish little. Organization, co-operation and co-ordination are the essentials of success. What we need is the thorough application of a well-thought-out program, one in which all the different agencies, such as registration, the dispensary, the visiting nurse, the open-air camp, the fresh-air school, the sanatorium and the hospital for the advanced cases work together as a harmonious and effective whole and not independently of each other.— [E. L. TRUDEAU.]

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, JULY, 1923.

SYPHILIS.

Current cases under investigation July 1, 1923	42
New cases assigned during the month	19
	<hr/>
Total	<u>61</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	18
Further treatment unnecessary	2
Not located:	
Search abandoned	20
Under investigation August 1, 1923	21
	<hr/>
Total	<u>61</u>

GONORRHEA.

Current cases under investigation July 1, 1923	95
New cases assigned during the month	66
	<hr/>
Total	<u>161</u>

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	35
Further treatment unnecessary	0
Not located:	
Search abandoned	55
Fraudulent use of name	1
Under investigation August 1, 1923	68
	<hr/>
Total	<u>161</u>

SUMMARY.

Current cases under investigation July 1, 1923	137
New cases assigned during the month	85
	<hr/>
Total	<u>222</u>

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	53
Further treatment unnecessary	2

Not located:

Search abandoned	75
Fraudulent use of name	1
Under investigation August 1, 1923	89

Total	<u>222</u>
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Form letters mailed to above patients	64
Form letters unclaimed, returned from post office	33
Form letters accepted by patients	31
Venereal disease complaints	5
Placed in hospital	1
Moved out of town	3
Under investigation	1
Visits by investigators	466

SUMMARY OF THE WORK, JULY, 1923.

BUREAU OF ADMINISTRATION.

	July	June		July	June
Visits to conventions	0	1	Bids accepted	3	2
Hearings authorized	3	1	Special drafts	1	0
Conferences	3	0	Regulations made	0	1
Prosecutions ordered	18	23	Personnel:		
Dump applications ap- proved	0	7	Appointments	2	7
Offensive trades ap- proved	1	1	Permanent	0	1
Public sewer authorized,	0	1	Probationary	0	3
Legal notices	163	357	Provisional	0	1
Antitoxin station ap- proved	0	1	Temporary	2	2
Orders	0	3	Transfers from de- partment	0	1
Opinions from Law De- partment	1	2	Leaves of absence	1	1
Forceible removals	2	0	Retirements	1	1
			Resignations	2	0
			Stable application ap- proved	0	1
			Beverage licenses ap- proved	44	0

LICENSES, PERMITS, ETC., ISSUED.

	July	June		July	June
Burial permits	828	984	Denatured alcohol li- censes	6	11
Milk licenses	174	956	Manicure-massage:		
Peddlers' licenses:			Granted	45	233
Granted	106	133	Grease	0	1
Refused	0	1	Dumps	5	2
Hen licenses granted	131	59	Manure	0	1
Permit for roosters granted	2	0	Beverage licenses	35	0
Stable permit granted provisionally	1	1			

MEDICAL DIVISION. COMMUNICABLE DISEASES.

	July	June		July	June
Visits by medical inspectors	921	2,071	Vaccination certificates	0	43
Deaths investigated	13	15	Cases brought to Boston for treatment	46	93
Vaccination	0	188	Antitoxin administered	15	34

NURSING SERVICE.

	July	June
Communicable disease visits	3,298	5,409

HEALTH UNIT (Blossom Street).

	July	June
Health Department proper:		
Vaccinations	37	47
Vaccination certificates issued	2	63
Antitoxin injections	3	0
Children examined for camps and day nurseries	80	21
Visits made by medical inspector	23	46
Dental clinic:		
Number of operations	140	1,174
Number of dismissals	17	133
Number of children treated	37	377
Cases visited by nurses:		
Medical	183	208
Babies	158	259
Complaints of unsanitary conditions	26	20
Visitors:		
Resident	0	6
Nonresident	1	7
General:		
Persons applying for information	360	404
Community Health Association:		
(a.) Baby Hygiene Association and Health Department Nurses:		
New babies admitted	44	46
Homes visited by nurses	547	444
Conferences:		
Number held	7	7
Attendance	246	252
(b.) Instructive District Nursing Association:		
Visits made by nurses	1,539	1,955
Boston Dispensary:		
Calls by district physician	30	39
Boston Sanatorium:		
Calls by nurses in district	929	1,057
Jewish Welfare Center:		
Nutrition conferences:		
Number	3	4
Attendance	43	135
Nutrition classes:		
Number	0	4
Attendance	0	54

CHILD HYGIENE DIVISION.

	New cases	Old cases
Visits	401	2,030
Feedings:		
Breast	206	915
Bottle	34	327
Bottle and breast	45	439
Condition:		
Excellent	20	169
Good	256	1,470
Fair	42	9
Defective conditions found:		
Eye diseases	1	1
Improper food	0	2
Skin diseases	0	2
Recommendations:		
Family doctor	0	5
Hospital	0	3
Milk station	8	61
Miscellaneous:		
Found not attending milk stations	4	61

OTHER ACTIVITIES.

Discharging ears	1
Pediculosis	39
Contagious diseases found and referred	5
Ophthalmia	65
Insanitary conditions found and referred	2
Physical examinations of children	210

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	July	June
New reports	2,580	2,989
Stores inspected	2,991	3,841
Sanitary defects remedied	98	197
Complaints at office	61	87
Referred to Sanitary Division	21	21
Milk applications	130	166
Peddlers:		
Applications for licenses approved	147	137
Vehicles inspected and approved	731	802
Court cases	1	2
Fines	0	\$20
Laboratory Examinations:		
Bacteriological	0	2
Chemical	7	2

CONDEMNATIONS.

REQUESTED.

Cheese	2,500 pounds	Shrimp, 40 cases.
Horseradish	31 cases	

NOT REQUESTED.

Beef	2,815 pounds	Plucks	12
Candy	395 pounds	Plux and sweetbreads	30
Corn shoulder	6 pounds	Poultry	235 pounds
Frankfurts	100 pounds	Sweetbreads	30
Geese	722 pounds	Swordfish	275 pounds
Grapes	20 pounds	Tongues	6 pounds
Ice cream cones	14,000	Tonic	111 cases
Livers	14	Turkey	30 pounds
Pigeons	18	Veal	795 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	July	June		July	June
Cattle inspected	5	4	Parts condemned	156	192
Calves inspected	1,185	489	Animals condemned	2	2
Swine inspected	3,511	3,718			

DAIRY DIVISION.

	July	June		July	June
Total inspections	1,391	1,108	Without milk rooms	363	360
Dairies inspected	762	686	Inactive	70	26
Scoring above 50 *	463	373	Total cattle inspected	7,708	113
Scoring below	299	313	Bacteriological examina-		
With milk rooms	399	326	tions	340	113

* Passable mark.

BUREAU OF MILK INSPECTION.

	July	June		July	June
Chemical inspection of:			Bacteriological examination of:		
Milk	1,312	1,277	Milk	705	665
Vinegar	20	20	Ice cream	126	145
Ice cream	15	1	Court cases	16	20
Butter	5	6	Fines	\$370	\$265
Miscellaneous	8	6			

SANITARY INSPECTION.

	July	June		July	June
Original inspections	1,500	1,664	Complaints	823	989
New reports	2,371	2,505	Court cases	18	23
Reinspections	5,674	6,735	Fines	0	\$20
Legal notices served	266	359			

BACTERIOLOGICAL LABORATORY.

	July	June
Examinations for diagnosis and release:		
Diphtheria	1,250	1,457
Tuberculosis	236	237
Typhoid	53	45
Gonorrhea	616	588
Gonorrheal Ophthalmia	40	44
Syphilis	1,346	1,109
Other examinations	34*	32
Bacteriological examinations of milk	705	665
Bacteriological examinations of ice cream	126	145

* Malaria, 6; cat for rabies, 1; genito-urinary tuberculosis, 10; dark field examinations, 2, smear for anthrax, 2; blood for typhus, 1; water for typhoid, 30; sand for contamination, 1; feces and urine for typhoid, 6; spinal fluid for meningococci, 1; pus from abscess, 1.

VITAL STATISTICS, JULY, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING JULY, 1923, WITH COMPARATIVE FIGURES FOR JULY, 1922.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	683	733	—50	10.64	11.51	— .87
Nonresidents deducted.....	545	608	—63	8.49	9.55	—1.06
BY AGE:						
Under one year.....	88	105	—17	1.37	1.65	— .28
One year to four years, inclusive.....	52	39	+13	.81	.61	+ .20
Sixty years and over.....	241	253	—12	3.75	3.97	— .22
BY SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy.....	43	34	+9	.67	.53	+ .14
Arterio-sclerosis.....	26	36	—10	.40	.56	— .16
Heart disease.....	95	92	+3	1.48	1.44	+ .04
Nephritis, chronic.....	31	51	—20	.48	.80	— .32
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,550	1,544	+6	24.14	24.25	— .11
b. Registered stillbirths.....	34	47	+13	.53	.74	— .21
Stillbirths per 1,000 births and stillbirths, .....	.....	.....	.....	21.46	29.54	—8.08
c. Deaths of mothers from causes incident to childbirth.....	8	8	—	.12	.12	—
Deaths of mothers per 1,000 births and stillbirths.....	.....	.....	.....	5.05	5.03	+ .02
d. Deaths of children in first year of life. . .	88	105	—17	1.37	1.65	— .28
Deaths in first year per 1,000 live births, .....	.....	.....	.....	56.77	68.00	—11.23
VIOLENCE:						
Accidents.....	42	50	—8	.65	.78	— .13
Homicides.....	1	—	+1	.015	—	+ .015
Suicides.....	6	9	—3	.09	.14	— .05
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	9	7	+2	.14	.11	+ .03
Broncho-pneumonia.....	20	19	+1	.31	.30	+ .01
Cancer.....	79	84	—5	1.23	1.32	— .09
Cirrhosis of the liver.....	2	4	—2	.03	.06	— .03
Diabetes mellitus.....	8	10	—2	.12	.16	— .04
Diarrhoeal diseases, children under two years of age.....	6	17	+11	.09	.27	— .18

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON, — Concluded

		CASES AND DEATHS.					
		ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
		1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:							
Anterior poliomyelitis.....	Cases...	1	3	—2	.015	.05	— .03
	Deaths..	1	1	—	.015	.015	—
Cerebro-spinal meningitis.....	Cases...	5	1	+4	.08	.01	+ .065
	Deaths..	3	—	+3	.05	—	+ .05
Diphtheria.....	Cases...	216	188	+28	3.36	2.95	+ .41
	Deaths..	9	6	+3	.14	.09	+ .05
Influenza.....	Cases...	2	—	+2	.03	—	+ .03
	Deaths..	—	1	—1	—	.01	— .01
Measles.....	Cases...	228	319	—91	3.55	5.01	—1.46
	Deaths..	6	3	+3	.09	.05	+ .04
Pneumonia (lobar).....	Cases...	35	25	+10	.54	.39	+ .15
	Deaths..	14	17	—3	.22	.26	— .04
Scarlet fever.....	Cases...	118	77	+41	1.84	1.21	+ .63
	Deaths..	6	2	+4	.09	.03	+ .06
Tuberculosis (pulmonary).....	Cases...	165	158	+7	2.57	2.48	+ .09
	Deaths..	57	58	—1	.89	.91	— .02
Tuberculosis (other forms).....	Cases...	30	23	+7	.47	.36	+ .11
	Deaths..	7	6	+1	.11	.09	+ .02
Typhoid fever.....	Cases...	11	9	+2	.17	.14	+ .03
	Deaths..	1	2	—1	.015	.03	— .015
Whooping cough.....	Cases...	50	133	—83	.78	2.09	+1.31
	Deaths..	4	—	+4	.06	—	+ .06

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

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OCT MONTHLY BULLETIN
HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 12.

BOSTON, SEPTEMBER, 1923.

No. 9

AMERICAN PUBLIC HEALTH ASSOCIATION — FIFTY-
SECOND ANNUAL MEETING.

The American Public Health Association extends to the public health profession and others interested, a cordial invitation to attend its fifty-second annual meeting, in Boston, Massachusetts, October 8-11. Headquarters will be at the Copley Plaza Hotel.

The annual meetings of this association are always important events in the public health world, but the meeting this year is of more than usual interest since it ends the first twelve months of the new program adopted as a result of the association's reorganization in 1922. Two general sessions and twenty-six meetings of the scientific sessions will be held this year. In addition, many trips of technical and general interest have been planned around historic old Boston as part of the entertainment and educational program. On Monday evening, October 8, the formal opening session will be followed by a reception. On Wednesday evening, October 10, Sir Thomas Oliver, distinguished English industrial hygienist, and Dr. George E. Vincent, president of the Rockefeller Foundation, will address the second general session. The scientific program, embracing all branches of public health, will be held according to sections as follows: Public

health administration, laboratory, sanitary engineering, vital statistics, child hygiene, food and drugs, industrial hygiene, public health nursing, health education and publicity.

Outline of Meetings by Days.*

SUNDAY, OCTOBER 7.

Morning: Health Sunday, joint auspices of American Public Health Association and Boston Health Show. Health talks by local and other speakers in churches.

Afternoon: Registration begins.

Evening: Governing Council meeting.

MONDAY, OCTOBER 8.

Morning: Section meetings. Public health administration, industrial hygiene, vital statistics, food and drugs.

Afternoon: Section meetings. Laboratory, vital statistics, sanitary engineering, health education and publicity. Governing Council meeting.

Evening: Opening general session. Addresses of welcome by Governor and Mayor. Presidential address. Reception.

TUESDAY, OCTOBER 9.

Morning: Section meetings. Public health administration, food and drugs, sanitary engineering, child hygiene.

Afternoon: Section meetings. Public health administration, laboratory, vital statistics, health education and publicity. Governing Council meeting.

WEDNESDAY, OCTOBER 10.

Morning: Registration continues. Section meetings. Laboratory, food and drugs, sanitary engineering, public health nursing.

Afternoon: Section meetings. Joint meeting public health administration and vital statistics, industrial hygiene, child hygiene. Governing Council meeting.

Evening: Second general session. Speakers of international prominence to be announced.

THURSDAY, OCTOBER 11.

Morning: Section meetings. Joint meeting public health administration and food and drugs, vital statistics, joint meeting child hygiene with public health nursing.

Afternoon: Entertainment. Boat trip down Boston Harbor and motor trip to Concord and Lexington.

* This program subject to corrections, additions, and some modification of arrangement.

All morning meetings begin promptly at 9.30 o'clock; afternoon meetings at 2 o'clock; evening meetings at 8 o'clock.

Registration takes place at the Copley Plaza. Scientific sessions are held in Huntington Hall, Room 12 and Room 21 of the Rogers Building; John Hancock Auditorium, and Auditorium of the Public Library (entrance from Boylston street only).

Scientific trips are still to be arranged. A full announcement will appear in the final program.

Among the important subjects scheduled for discussion are papers on food inspection, growth of children, full time health officers, mental hygiene in the school program, nutrition work, the effect of so-called moonshine liquors, standards for schoolhouse construction and sanitation, epidemiology, better birth registration, organic heart disease, studies on the etiology of common colds, water supply and purification, mosquito control, etc.

An important report of the Committee on Municipal Health Department Practice will be presented in the public health administration section. At this time the announced plan for the awards to cities for distinctive community service will be discussed. The problems of health officers in small communities will be specially considered at a Round Table discussion scheduled for Wednesday morning. The clinic on printed matter, which has proved valuable in past years, will be held again this year by the section on health education and publicity. At this clinic, samples of public health publicity will be examined and criticized by experts. Of special interest also is the report of the Committee on Health Problems in Education of the child hygiene section.

The September issue of the "American Journal of Public Health" carries the preliminary annual meeting program arranged by sections, and the October journal will contain additional information. Members of the association, traveling by rail to Boston, may secure a reduction of one fourth the regular round-trip rate.

To Physicians and Health Workers.

You are interested, I know, in public health. The American Public Health Association is the greatest exponent of public health in the country. Therefore, I know you will be interested in the fifty-second annual meeting of the American Public Health Association, to be held in Boston, October 8-11.

The annual meetings of this organization are the leading congresses on public health in the United States. The program of the fifty-second annual meeting, which is referred to in this issue of the Health Department BULLETIN, covers all phases of public health, and I am sure that the scientific and general sessions would prove of

the greatest value to you. I know of no better way to keep abreast with the current rapid developments in the public health field than to attend the annual meetings and to become a member of the American Public Health Association.

On behalf of the Governing Council of the Association, and as chairman of the Local Committee on Arrangements, I take pleasure in inviting your attendance at the fifty-second annual meeting, and in extending to you a cordial invitation to become a member of the association. Membership includes a subscription to the "American Journal of Public Health," which is the voice of the association between meetings.

If you will just write your name and address in the space below, and send it to me, I shall be very glad to sponsor you for membership.

Very sincerely yours,

F. X. Mahoney, M.D.
Health Commissioner.

Name.....

Address.....

Occupation.....

THE BOSTON HEALTH SHOW.

The Boston Health Show in points of magnitude and completeness, scientific soundness and popular appeal promises to be the most notable event of the kind ever presented in this country. It will embody in well balanced proportions practically every educational, commercial and entertainment feature allied with the subject of health. An idea of the magnitude of the enterprise may be gained from the fact that more than 102,000 square feet of floor space will be required for its presentation. For more than a year the work of organization and development has been in progress and to every detail most careful attention has been given. Its purpose is to effectively educate the general public in the ways of health, the

avoidance of sickness and thus to promote human efficiency, prosperity and happiness. It is an undertaking worthy of the support of every good citizen.

The sponsors of this great health demonstration are the Boston Health Department, the Massachusetts Department of Public Health and the Boston Health Exhibit Committee. The Governor of Massachusetts and the Mayor of the City of Boston head the Exposition Committee, the membership of which embraces representatives of all of the organizations and institutions identified with or interested in the work of promoting human health and welfare in this community.

Several thousand health officials and volunteer health workers will assemble in Boston during the week of the Health Show, the annual meeting of the American Public Health Association being held in this city at that time. Naturally, the Health Show will be an object of peculiar interest to the "visiting" members of this organization.

Health Sunday will be observed October 7, at which time it is planned to have health discourses in the churches, delivered, so far as is practicable, by distinguished visiting health workers.

Educational exhibits: The health departments of the City of Boston and the Commonwealth of Massachusetts, co-operating with all important professional and lay organizations, educational institutions and scientific bodies engaged or interested in promoting health and community welfare are preparing special educational displays for the exposition. Particular attention has been given to the development of exhibits having a strong public appeal, exhibits that are at once attractive and at the same time most effective in teaching important health truths. To this end, a large number of ingenious mechanical devices will be employed and in all departments there will be active demonstrations which will prove to be of peculiar interest to the general public. Among these will be the numerous animated exhibit pieces employed with marked success by the National Health Shows, Inc. There will be no grewsome or offensive displays; this is a *health* show, not a *disease* show.

A Better Babies Conference, with accommodations for the examination of one hundred children each afternoon, will be conducted with the assistance of leading children's specialists of Boston. Children from six months to six years will be given a mental test, physical examination, dental inspection, eye, ear, nose and throat examination and be weighed and measured, each being scored in accordance with the method recommended by the American Medical Association. This procedure will be conducted in the "Baby House," glass windows permitting the visiting public to view the examinations.

Free health examinations, conducted by a thoroughly competent corps of medical examiners, will be available to adults during the evening sessions of the exposition.

Interesting experiments and demonstrations will be generously employed in depicting the progress of medical and sanitary science.

Parenthood Institute: Happy homes minister to health. An unusual feature of the Boston Health Show will be a Parenthood Institute held for the purpose of discussing problems that parents and those interested in maintaining wholesome, efficient home life find most baffling. At these sessions, six in number, specialists in psychology and sociology and persons of experience in dealing with child life will present in a practical way information of value to all charged with family responsibilities.

Popular health talks by leaders of health thought, every afternoon.

Entertainment of great variety and popular in character, appropriate to an exposition of this kind, will be provided each afternoon and evening.

The Historic Health Pageant, written especially for the Boston Health Show, requiring a cast of four hundred in its presentation, will undoubtedly prove to be one of the great outstanding features of the exposition.

Special motion pictures, scientific, educational and entertaining, will be provided.

Athletic contests, life saving and physical education demonstrations will be features of the daily program.

Music and Dancing — Public dancing each evening, Sunday excepted.

Appropriate commercial exhibits, embracing a carefully selected display of approved commercial products having a bearing on individual and community health, hygiene and sanitation, will be made by manufacturers of national repute and leading merchants of Boston and vicinity. Only these products that meet the requirements of medical and health authorities generally will be accepted by the Board of Control for display.

Admission: Adults, fifty cents, including tax. Children under sixteen years, twenty-five cents, tax paid.

Advance sale tickets, available up to and including October 5, forty cents each, tax paid.

Health Show Office: 1001 City Hall Annex, Boston. Phone Congress 5100.

“PTOMAINE POISONING.”

The term “ptomaine poisoning” has been abandoned by modern sanitarians as being meaningless; this because of the fact that it is now possible, after thorough investigation, to definitely classify all gastro-enteric conditions suspected to have been caused by infected food.

In a reported case, all evidence bearing upon the food is studied first from an epidemiological standpoint. Secondly, the symptoms of the individual or persons made ill are then studied and classified as cases being due either to the group of organisms known as *B. para-typhosus* or *B. enteritidis* or to the more dangerous *B. botulinus*.

The food is examined for the purpose of finding these organisms present, as is likewise the patient.

Through bacteriological tests and animal experimentation in the laboratory, we are able to prove the existence of these very definite and known organisms.

All suspected food is likewise examined, and in the case of canned goods the examination must necessarily be a thorough one, in that external evidence may necessarily be absent indicating the presence of botulism toxin among a suspected lot of canned goods.

In the treatment of the above cases, proper diagnosis is very essential, in that some of these cases may be due to the presence of a so-called “carrier” (one who harbors germs and is able to distribute them freely without showing any of the clinical symptoms). Furthermore, in the case of botulism, the most serious type of food infection, there is a specific antitoxin which it is necessary to administer very early in the disease.

The safest rule to adopt if food looks, smells, or tastes unusual, — do not eat it.

Canned goods may be detoxified by boiling for thirty minutes at 220 degrees Fahrenheit.

The eighth annual New England Tuberculosis Conference and celebration of the twenty-fifth anniversary of the founding of Rutland State Sanatorium, the first institution of its kind in the world, under the auspices of Connecticut Tuberculosis Commission, Maine Public Health Association, Massachusetts Tuberculosis League, Rhode Island Tuberculosis Association, Vermont Tuberculosis Association and Massachusetts State Department of Public Health, was held at Worcester and Rutland, Mass., September 12 and 13, 1923, on Wednesday at Hotel Bancroft, Worcester, and on Thursday at State Sanatorium, Rutland.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during August. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.11	3.61	36
Anderson, Oscar A.....	12.12	3.75	88
Antetomasso, Peter.....	12.84	4.25	17
R. Barden Creamery Company.....	13.54	4.95	199
Barron, C. W.....	14.30	5.25	11
Barry, Michael F.....	11.89	3.62	148
Bergmann, John H.....	12.50	3.81	32
Bemis, H. E.....	12.09	3.60	161
Bolio, Mary J.....	12.70	4.10	22
Bowditch, Estate, E. F.....	12.30	3.80	45
Brandley, P. J. & T. J.....	12.66	3.77	168
Brandon Farms Milk Company.....	12.33	3.75	88
Brookdale Creamery Company.....	12.42	3.80	109
Burns, James.....	12.18	3.60	147
Casey, John D.....	12.39	3.76	28
Cashin, James F.....	12.15	3.75	40
Chapin, George L.....	12.16	3.50	13
Childs Brothers.....	12.08	3.60	74
Clark, Levi.....	12.19	3.51	14
Cohen, Benjamin.....	12.43	3.95	59
Corkery, John H.....	12.16	3.53	199
Creedon & Crowell.....	12.16	3.76	117
Cummings, F. S., Company.....	12.00	3.60	34
Cunningham, Paul.....	13.55	4.65	10
Cusick, William H.....	12.39	3.75	40
Deerfoot Farms Milk Company.....	12.62	3.86	23
Denehy, Timothy.....	12.45	3.72	22
DiMauro, Gaetano.....	12.21	3.68	24
Driscoll, William B., Company.....	13.66	5.30	16
Duggan Brothers.....	12.27	3.73	19
Edgerly, F. S.....	12.26	3.73	396
Elm Spring Farm Milk Company.....	12.26	3.73	49
English, John.....	12.71	4.05	62

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Ferguson, Malcolm D.....	12.36	3.68	124
Floyd Milk Company.....	12.03	3.58	253
Fortune & Allen.....	12.38	3.81	22
Garvin, Charles E.....	14.12	5.45	119
Giroux, J. E., & Co.....	12.16	3.65	67
Griffin, Joseph L.....	12.37	3.70	8
Griffin Brothers.....	12.48	3.80	10
Gushee, W. S., & C. W.....	12.23	3.55	65
Hager, J. M., & Sons.....	12.14	3.73	17
Hancock, T. G., Company.....	12.00	3.66	43
Herlihy Brothers.....	12.19	3.65	29
Hickey, Martin J.....	12.76	4.03	167
Holden, John E.....	12.31	3.73	23
Hood, H. P., & Sons, Inc.....	12.30	3.80	302
Hurley, M. F.....	12.95	4.30	101
Jones, William T., & Co., Inc.....	12.40	3.80	59
Kendall Brothers.....	12.12	3.56	107
Kennedy, Robert J., Jr.....	11.98	3.55	64
Kingston, Samuel.....	12.79	4.06	44
Klaw & Freeman.....	12.36	3.83	11
Knapp, George J.....	12.55	3.80	34
Lang, Michael J.....	12.23	3.60	148
Larkin, Patrick.....	12.74	3.88	50
Larsson, Charles.....	12.16	3.48	20
Lesser, Joseph.....	12.48	3.45	20
Lincoln Farms, Inc.....	13.17	4.50	66
Lubin, Felix.....	12.03	3.55	15
Lydonville Creamery Association.....	12.49	3.70	7
Magee, Nellie A.....	12.38	3.70	17
Manning, Peter E.....	12.06	3.60	440
Maple Farm Milk Company.....	12.14	3.60	60
McAdams, John F.....	12.19	3.61	75
McKernan, John.....	12.54	3.80	11
Moore, Peter.....	12.03	3.60	281
Morgan, George D., & Sons.....	13.24	4.75	14
Munchbach, George.....	12.48	3.83	16
Newton & Pope.....	12.82	4.18	46
Noble, W. F., & Sons.....	12.42	3.90	49
Raycraft, Benjamin F.....	12.05	3.65	14

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Robinson, Albert J.....	12.41	3.76	814
Robinson, James A.....	12.54	3.85	78
Runkle, John C.....	12.74	4.00	14
Schuster, Adam.....	12.15	3.72	65
Seven Oaks Dairy Company.....	12.02	3.71	23
Shick, Jacob.....	12.22	3.75	164
Smith & Lynch.....	12.18	3.63	77
Somerset Farms Milk Company.....	12.48	4.00	11
Sterling Farms Milk Company.....	12.21	3.63	70
Stone, Howard L.....	12.13	3.41	13
Stuart, Wallis E.....	12.22	3.75	8
Sullivan, John D.....	12.44	3.93	36
Sullivan, John L.....	12.32	3.76	218
Turner Centre System, Inc.....	12.46	3.83	56
Upland Farms Milk Company.....	14.86	5.50	12
Vartanian, Setrag.....	11.87	3.42	34
Vartanian, Kasper.....	12.08	3.57	30
Walker-Gordon Laboratory Company.....	12.56	3.88	7
Ware, George H.....	12.42	3.67	54
Warren, Cornelia.....	12.94	4.16	13
Weiler, E. & Sons.....	12.23	3.76	82
Werner, Ferdinand.....	12.28	3.71	32
Westwood Farms Milk Company.....	11.96	3.53	27
White Brothers.....	12.55	3.95	7
Whiting Milk Companies.....	11.94	3.52	70
Whittemore, Warner D.....	12.32	3.83	842
Wiswall, Granville A.....	12.15	3.58	12
Wittenberg & Co.....	12.32	3.60	150
Woodland, Charles.....	12.00	3.50	2

Fifty-Second Annual Meeting
 OF THE
American Public Health Association
 HEADQUARTERS, COPLEY SQUARE HOTEL, BOSTON, MASS.
October 8 to 11, 1923
MAKE RESERVATIONS NOW!

CHAIN STORE MILK.

NAME OF DEALER.	Supplied by	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.20	3.80	51
The Cloverdale Company.....	Turner Center System.....	12.24	3.73	372
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company.	12.59	4.00	86
Co-operative Grocery Com- pany.	J. M. Hagar & Sons.....	12.15	3.47	168
Economy Grocery Company...	Turner Center System.....	12.40	3.73	19
First National Stores.....	Turner Center System.....	12.50	3.81	23
Morgan Brothers Company...	Whiting Milk Companies...	12.05	3.56	46
M. O'Keeffe, Inc.....	J. M. Hagar & Sons.....	12.24	3.63	35
Rose Tea Company.....	H. P. Hood & Sons, Inc., and Whiting Milk Com- panies.	12.19	3.73	74
Hyman Winer.....	Hyman Winer.....	12.26	3.68	43

A SERIOUS HEALTH PROBLEM.

Deaths and disability among persons in the productive period of life, directly or indirectly attributable to acute infections of the respiratory tract, constitute the most serious health problem which confronts us in this part of the country today. Moreover, if their sequellae in the form of chronic focal infections are responsible for premature degenerative changes in the cardio-vascular system to the extent that many believe, then the economic importance of acute infections of the respiratory tract cannot be exaggerated. Yet the prevention of deaths and disability from these infections is at present receiving the least attention of any of our health problems. Deaths which can be ascribed to such infections from our death certificates alone exceed our deaths from tuberculosis for the prevention of which so much money is being spent from public and private funds. In comparison, our total deaths from acute contagious diseases like diphtheria, scarlet fever, whooping cough, etc., to which public appropriations are so largely devoted, are utterly insignificant. The deaths, expense and absence from productive occupations which is going to occur in Boston the next eight months from "colds" and their resulting complications of infections of ears, sinuses, tonsils, lungs and other organs, will mean a greater relative economic loss to Boston than any tropical city in which yellow fever was endemic ever suffered from that disease. The yellow fever never killed the natives of such a city as colds kill us.

We do not know as much about the direct and predisposing causes of our acute infections of the respiratory tract as we do about yellow fever or malaria or some other tropical diseases. Perhaps when the business importance of acute respiratory infections is realized the subject will receive the same kind of attention that yellow fever and malaria has received. But like the Hindu who looked on death from cholera with fatalistic resignation we do not even make rational efforts to utilize practically such knowledge as we already possess, regarding the etiology of colds and pneumonia.

We have made elaborate and expensive provisions for keeping discharges from diseased human bowels out of our food and drink and our mouths and stomachs and the result is shown in an enormous reduction in infant mortality and in adult deaths and disability from infections of the digestive tract. We have, however, made as yet very feeble attempts to keep discharges from diseased human noses and throats out of our food and drink, our eating and drinking utensils, and out of our noses, mouths and throats.

Under the present conditions of crowded human life in Boston for the next eight months opportunities for the transplantation of infective organisms from the diseased noses and throats of other persons to our own noses and throats will be frequent and practically inescapable.

What are we going to do about it? We cannot at present rely on the state or municipality to any appreciable extent to protect us as we are protected with respect to public water and milk supplies. The individual must try to utilize available knowledge of the etiology of acute infections of the nose, throat and lungs to protect himself.

Opportunities for infection may be lessened by greater attention to household and personal cleanliness. It was discovered or perhaps only rediscovered in the course of the naval operations during the Napoleonic wars that the spread of sore throats among men could be stopped by boiling mess gear. A similar discovery or rediscovery was made during the late war. If families would adopt the practice in the home of boiling or sterilizing in some way the family eating and drinking utensils after use instead of slushing them around in lukewarm dishwater and spreading over all the dishes the pathogenic organisms originally deposited perhaps on a single spoon, it is safe to say that the results would be comparable to those which Doctor Levy secured in Virginia by inducing mothers to boil diapers. If common infections about the nose and throat are like other infections regarding which we know more, it is to be presumed that a person may be dangerous to others before he shows recognizable symptoms of a cold. If this be so, methods to insure safe eating and drinking utensils in the home should be carried out as a regular

routine procedure and not left to be adopted after some member of the household is known to be sick.

The possibility of infection in this way is, of course, not confined to the home. The dishwashing practices in a large restaurant or hotel are today as a rule safer than in the average home but the public swapping of infective material is constantly being promoted by our lunch counter neighbor who turns his head away to cough over the uncut pie and by the waitress who politely coughs in her hand before she picks up our rolls. We have stopped spitting out of doors where pathogenic organisms are rapidly rendered innocuous. We changed spittoons into cuspidors and have nearly succeeded in banishing them altogether. We are now being taught that we should cough or expectorate into a handkerchief, to be carefully put in our pockets and held by the heat of our bodies at a temperature known to be favorable for the preservation of the virulence of pathogenic organisms, but our teachers are silent to possible dangers to others of soiling our hands in removing the handkerchief from the pocket or in taking it out after it has dried and shaking it in a crowded room or street car. Is it not about time that we put this matter on a more rational basis?

Ventilation is generally supposed to have something to do with the prevalence of infections of the respiratory tract. This is undoubtedly so, but the voluminous reports of investigations and experiments regarding ventilation have been singularly unproductive even in making our winter indoor atmosphere less obnoxious to our senses.

We realize that to produce any sort of an infection anywhere something is usually needed besides a possibly infective so-called pathogenic organism. There is usually necessary also a lowered degree of the natural resistance of tissue to infection. Anything which tends to put the mucous membrane of the nose, throat or lungs in an abnormal condition lowers the natural resistance of the tissue and favors infection. A sensitivity on the part of an individual's mucous membrane to protein material in the atmosphere, whether of vegetable or animal or human origin, may be sufficient. Irritating dusts of any sort, as for example from a concrete floor, will do it. So also will the irritating alkalies stirred up into the atmosphere of the room after the floor has been washed with water which contained an excessive amount of soap powder, and the water has evaporated. A steam-heated, dried-out atmosphere, whether dusty or not, will produce an abnormal condition of the respiratory mucous membrane favorable to infection. This fact has been recognized in an academic sort of a way and a pretence is occasionally made to put a little moisture in such an atmosphere, but instances are exceed-

ingly uncommon where one finds that a real effort has been made to secure in a steam-heated human habitation a degree of relative humidity comparable with that even to be found in an out-of-doors winter atmosphere on a cold day. Yet this might just as easily be done as in establishments where the artificial maintenance of a certain degree of relative humidity is necessary for manufacturing purposes.

We have no reason to hope that there will be fewer deaths and less time lost from gainful occupations in Boston this winter by reason of acute infections of the nose, throat and lungs than last winter. There will probably be more. The economic loss from such infections would appear to be increasing rather than decreasing. The annual crop of pneumonia and mastoid operations has as yet shown no sign of failure in this part of the country. But the Boston Health Department can assure the people of this city that it would tend to decrease the prevalence in Boston this winter of acute infections of the nose, throat and lungs, if they would change their personal habits somewhat and try to adopt the precautions suggested in the foregoing, even to the extent which they as individuals may find it practicable to do so.

The Health Department can also assure people that when they find themselves infected the chances of serious complications may be lessened by applying to themselves the treatment which has been found so important in enabling the body to overcome serious surgical infections, rest. This means rest in bed, especially when an abnormal temperature indicates that the whole body is struggling to overcome devitalizing poisons. It means also as in surgery rest of the infected part. Violent efforts to clear a congested obstructed nose often serve to drive infective material into the eustachian tubes or sinuses. Injudicious treatment of an infected throat also may favor the extension of the infective process.

While doubtless much can be done to lessen opportunities for acquiring acute infections of the respiratory tract, this would not appear to be the solution of the problem as it presents itself in a modern urban community. In spite of efforts to prevent the spread of measles, for example, there is no reason to believe that we have succeeded in preventing anybody from contracting measles sooner or later in a city like Boston. Efforts to control smallpox have met with no appreciable success until a large proportion of the susceptible population has been made immune artificially or otherwise. We knew practically as much about the precautionary measures necessary to prevent the spread of typhoid fever at the time of the Spanish War as now, but this knowledge did not prevent the military effectiveness of our army from being crippled by the disease. In this war as in the

Boer War and the Russian-Japanese War military necessities made it impracticable to carry out the precautions necessary to prevent the spread of typhoid fever. It was only after soldiers were artificially immunized against typhoid that the disease ceased to be an important factor in military operations. In very much the same way the conditions under which human beings must live and work in a city like Boston make it impracticable to carry out the precautionary measures necessary to prevent opportunities for infections of the respiratory tract from resulting in a serious economic loss. Our hope of reducing this loss to any great extent lies in bringing about in our general population some sort of an artificial immunity comparable to that which is now available as a means of immunizing against typhoid. The proposition may be more difficult than was the problem of finding a practicable method for immunizing against typhoid fever, but enough has already been done to remind one of the hopes and uncertainties which attended the attempts to immunize against typhoid at the time of the Boer War.

It is questionable if an official state or municipal health agency should ever undertake research or experimental work. Experience has shown that when a health department has gone into such work the results have often been worse than profitless. It would seem to be a sound principle to use public appropriations only for public health promotion projects which have already been demonstrated to be capable of producing definite tangible results commensurate with their cost. But more research and experimental work should be done with a view to demonstrating some practicable solution of our problem of acute respiratory infections, and it is certainly the duty of every municipal health department to emphasize the economic seriousness of this problem and to endeavor by every means within its power to stimulate and encourage efforts to find a practical method for its solution.

Moreover, a practical solution means something more than mere ability to produce a transitory immunity to certain kinds of pneumonia or streptococcic infections, which may after all, perhaps, be only complications of some primary infective agent of an unknown nature.

" Good Health is Life's Insurance — Our Policy is to keep it "

Funds accruing to the Boston Health Exhibit Committee will be devoted to the advancement of health in Boston and New England, through the agencies of the New England Health Institute and the Boston Health League, Inc.

THE BOSTON HEALTH SHOW

October 6 to 13, inclusive, at Mechanics Building

" Health for Prosperity and Better Posterity "

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING AUGUST, 1923.

CLASSIFICATION.	Number.	Percentage.
After death.....	10	22.73
Seven days or less.....	2	4.55
Eight to fourteen days, inclusive.....	2	4.55
Fifteen to twenty-one days, inclusive.....	0	—
Twenty-two to thirty-one days, inclusive.....	3	6.82
WITHIN FIRST MONTH.....	17	38.65
Within second month.....	4	9.09
Within third month.....	5	11.36
Within fourth month.....	2	4.55
Within fifth month.....	3	6.82
Within sixth month.....	0	—
Within seventh month.....	1	2.27
Within eighth month.....	0	—
Within ninth month.....	0	—
Within tenth month.....	0	—
Within eleventh month.....	1	2.27
Within twelfth month.....	0	—
WITHIN FIRST YEAR PRECEDING DEATH.....	33	75.00
Within second year.....	4	9.09
Within third year.....	4	9.09
More than three years.....	3	6.82
Totals.....	44	100.00

PROGRESSIVE PUBLIC HEALTH.

A great deal has been accomplished in the past in the way of preventing disease by doing for the people what they could not do for themselves. For example, the great decrease in deaths from typhoid fever which has taken place in this part of the country in the last twenty-five years has been due to the construction and management of public water works assuring the people an abundant and safe water supply, and to the construction of sewerage systems assuring the prompt removal of dangerous waste material before flies and other insects can distribute it over articles of food.

These same measures for the protection of the health of the public, taken together with regulations which have been put in force to bring about the pasteurization of milk, is chiefly responsible for the great decrease in the death rate among babies. It was not so

many years ago that out of every one thousand babies born in Boston 180 died before they were a year old. Now out of every one thousand born, less than ninety die during their first year of life.

But as we have gone on doing things through governmental agencies to protect people's health we find that we are reaching a point where further progress in preventing disease must depend on getting people to do more things for themselves. For instance, we may know what kinds of food young children need to grow properly, develop good teeth and otherwise to be strong and healthy, but we cannot make children eat the right kinds of food by making laws saying what food children must eat. We must teach parents what are proper foods for children and the parents must see that the children really eat such foods.

We have free for anybody who needs it diphtheria antitoxin which will stop a case of diphtheria if given at the beginning of the disease. We also now have a means of protecting or immunizing a child so that it will never take diphtheria at all. The record shows that practically all deaths from diphtheria occur in children who have had sore throats for at least several days before even a doctor is called and that by the time antitoxin is given it is too late. In order to prevent such deaths from diphtheria we must induce parents to look after their children properly, to recognize symptoms suggestive of diphtheria and call a doctor at once, or better still, to have their children immunized so that there need be no worry about diphtheria at all.

A child who is developing measles may give measles to other persons for two to three days before the rash appears. Likewise, a child developing scarlet fever is dangerous to others for forty-eight hours before the rash appears. A child has whooping cough perhaps in a stage most dangerous to others for a week before the child begins to whoop. The spread of those diseases will never be stopped until people know these things and take precautions accordingly.

In order to teach people matters of this sort and show them how they can make practical use of such information for the protection of themselves and others a Health Show will be held in Boston from October 6 to 13 this year. It will be the biggest thing of its kind ever attempted. The annual meeting of the American Public Health Association will be held in Boston at the same time. This meeting will bring together people from all over North America interested in public health. The Health Show itself is, however, being held under the auspices of the Boston Health Department, Massachusetts Department of Public Health, and the Boston Health Exhibit Committee. This will be a health show and not a disease show. Ways to promote health will be shown, not the results of disease. Besides

exhibits presented by official and unofficial agencies devoted to the public health, there will be exhibits of commercial devices and products which have a relation to health. There is also a program of popular events, including contests in which the value of health and strength is practically demonstrated.

SUMMARY OF THE WORK, AUGUST, 1923.

BUREAU OF ADMINISTRATION.

	Aug.	July		Aug.	July
Hearings authorized	0	3	Bids accepted	0	3
Conferences	4	3	Contracts	1	0
Prosecutions ordered	15	18	Special drafts	2	1
Dump applications ap- proved	1	0	Personnel:		
Disapproved	1	0	Appointments	9	2
Offensive trades ap- proved	0	1	Probationary	4	0
Legal notices	320	163	Provisional	2	0
Antitoxin station disap- proved	1	0	Temporary	3	2
Opinions from Law De- partment	0	1	Transfers from de- partment	2	0
Forcible removals	1	2	Rating changed	1	0
Lying-In Hospitals cer- tified	2	0	Leaves of absence	0	1
			Retirements	0	1
			Resignations	0	2
			Beverage licenses ap- proved	0	44

LICENSES, PERMITS, ETC., ISSUED.

	Aug.	July		Aug.	July
Burial permits	853	828	Final	1	3
Milk licenses	146	174	Denatured alcohol li- censes	4	6
Peddlers' licenses:			Manicure-massage:		
Granted	125	106	Granted	60	45
Hen licenses granted	67	131	Dumps	0	5
Permit for roosters granted	0	2	Beverage licenses	9	35
Stable permit granted provisionally	0	1	Offensive trade license	1	0

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Aug.	July		Aug.	July
Visits by medical inspec- tors	1,504	921	Vaccination certificates	27	0
Deaths investigated	31	13	Cases brought to Boston for treatment	41	46
Vaccination	243	0	Antitoxin administered	13	15

NURSING SERVICE.

	Aug.	July
Communicable disease visits	2,413	3,298

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, AUGUST, 1923.

SYPHILIS.

Current cases under investigation August 1, 1923	21
New cases assigned during the month	14
Total	<u>35</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	11
Further treatment unnecessary	0
Not located:	
Search abandoned	8
Under investigation September 1, 1923	16
Total	<u>35</u>

GONORRHEA.

Current cases under investigation August 1, 1923	68
New cases assigned during the month	52
Total	<u>120</u>

DISPOSITION OF CASES.

Located:	
Under treatment	1
Placed under treatment	26
Further treatment unnecessary	3
Not located:	
Search abandoned	53
Fraudulent use of name	0
Under investigation September 1, 1923	37
Total	<u>120</u>

SUMMARY.

Current cases under investigation August 1, 1923	89
New cases assigned during the month	66
Total	<u>155</u>

DISPOSITION OF CASES.

Located:	
Under treatment	1
Placed under treatment	37
Further treatment unnecessary	3
Not located:	
Search abandoned	61
Fraudulent use of name	0
Under investigation September 1, 1923	53
Total	<u>155</u>

Form letters mailed to above patients	61
Form letters unclaimed, returned from post office	34
Form letters accepted by patients	27
Venereal disease complaints	4
No evidence of disease	1
Unable to locate	1
Placed under treatment	1
Under investigation	1
Visits by investigators	511

HEALTH UNIT (Blossom Street).

Health Department proper:	Aug.	July
Vaccinations	342	37
Vaccination certificates issued	70	2
Antitoxin injections	0	3
Children examined for camps and day nurseries	72	80
Visits made by medical inspector	26	23
Dental clinic:		
Number of operations	0	140
Number of dismissals	0	17
Number of children treated	0	37
Cases visited by nurses:		
Medical	131	183
Babies	315	158
Complaints of unsanitary conditions	12	26
Visitors:		
Resident.	11	0
Nonresident	1	1
General:		
Persons applying for information	321	360
Community Health Association:		
(a.) Baby Hygiene Association and Health Department		
Nurses:		
New babies admitted	30	44
Homes visited by nurses	535	547
Conferences:		
Number held	9	7
Attendance	349	246
(b.) Instructive District Nursing Association:		
Visits made by nurses	1,139	1,539
Boston Dispensary:		
Calls by district physician	21	30
Boston Sanatorium:		
Calls by nurses in district	683	929
Jewish Welfare Center:		
Nutrition conferences:		
Number	3	3
Attendance	45	43
Nutrition classes:		
Number	0	0
Attendance	0	0

CHILD HYGIENE DIVISION.

	New cases.	Old cases.
Visits	401	2,030
Feedings:		
Breast	206	915
Bottle	34	327
Bottle and breast	45	439
Condition:		
Excellent	20	169
Good	256	1,470
Fair	42	9
Defective conditions found:		
Eye diseases	1	1
Improper food	0	2
Skin diseases	0	2
Recommendations:		
Family doctor	0	5
Hospital	0	3
Milk station	8	61
Miscellaneous:		
Found not attending milk stations	4	61

Other Activities.

Discharging ears	1
Pediculosis	39
Contagious diseases found and referred	5
Ophthalmia	65
Insanitary conditions found and referred	2
Physical examinations of children	210

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Aug.	July
New reports	3,814	2,580
Stores inspected	4,190	2,991
Sanitary defects remedied	85	98
Complaints at office	44	61
Referred to Sanitary Division	13	21
Milk applications	107	130
Peddlers:		
Applications for licenses approved	124	147
Vehicles inspected and approved	626	731
Court cases	0	1
Laboratory Examinations:		
Bacteriological	2	0
Chemical	8	7

CONDEMNATIONS.

REQUESTED.

Canned cherries	159 cases
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WITHOUT REQUEST.

Beef	150 pounds	Meatballs	8 pounds
Corned beef	8 pounds	Plucks and sweetbreads	29 pounds
Corned shoulder	7½ pounds	Shrimp	40 cases
Canned sardines	40 cans	Spare ribs	300 pounds
Fish	2 pounds	Steak	1½ pounds
Livers	4 pounds	Tongues	9 pounds
Livers	10 pounds	Veal	250 pounds
Plucks	20 pounds		

LIVE STOCK INSPECTION (Brighton Abattoir).

	Aug.	July		Aug.	July
Cattle inspected	27	5	Sheep inspected	30	0
Calves inspected	1,193	1,185	Parts condemned	3	156
Swine inspected	3,784	3,511	Animals condemned	172	2

DAIRY DIVISION.

	Aug.	July		Aug.	July
Total inspections	1,042	1,391	Without milk rooms	161	363
Dairies inspected	289	762	Inactive	6	70
Scoring above 50 *	162	463	Total cattle inspected	3,993	7,708
Scoring below	127	299	Bacteriological examina-		
With milk rooms	128	399	tions	542	340

* Passable mark.

BUREAU OF MILK INSPECTION

	Aug.	July		Aug.	July
Chemical inspection of:			Bacteriological examination of:		
Milk	824	1,312	Milk	510	705
Vinegar	10	20	Ice cream	41	126
Ice cream	19	15	Court cases	29	16
Butter	7	5	Fines	\$570	\$370
Miscellaneous	14	8			

SANITARY INSPECTION.

	Aug.	July		Aug.	July
Original inspections	1,459	1,500	Complaints	945	823
New reports	2,701	2,371	Court cases	15	18
Reinspections	6,987	5,674	Fines	\$174	0
Legal notices served	270	266			

BACTERIOLOGICAL LABORATORY.

	† Aug.	July
Examinations for diagnosis and release:		
Diphtheria	0	1,250
Tuberculosis	0	236
Typhoid	0	53
Gonorrhea	0	616
Gonorrheal Ophthalmia	0	40
Syphilis	0	1,346
Other examinations	0	* 34
Bacteriological examinations of milk	0	705
Bacteriological examinations of ice cream	0	126

* Malaria, 6; cat for rabies, 1; genito-urinary tuberculosis, 10; dark field examinations, 2; smear for anthrax, 2; blood for typhus, 1; water for typhoid, 30; sand for contamination, 1; feces and urine for typhoid, 6; spinal fluid for meningococci, 1; pus for abscess, 1.

† August figures not available.

VITAL STATISTICS, AUGUST, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING AUGUST, 1923, WITH COMPARATIVE FIGURES FOR AUGUST, 1922.

	BIRTHS AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	721	795	—74	11.23	12.48	—1.25
Nonresidents deducted.....	594	646	—52	10.02	10.15	—0.13
By Age:						
Under one year.....	102	133	—31	1.59	2.09	—0.50
One year to four years, inclusive.....	53	58	—5	.82	.91	—0.09
Sixty years and over.....	248	258	—10	3.86	4.05	—0.19
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, So CALLED:						
Apoplexy.....	51	57	—6	.79	.89	—0.10
Arterio-sclerosis.....	21	24	—3	.33	.38	—0.05
Heart disease.....	118	109	+9	1.84	1.71	+0.13
Nephritis, chronic.....	38	36	+2	.59	.56	+0.03
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,622	1,616	+6	25.26	25.38	—0.12
b. Registered stillbirths.....	43	59	—16	.67	.93	—0.26
Stillbirths per 1,000 births and stillbirths.....				25.82	35.22	—9.40
c. Deaths of mothers from causes incident to childbirth.....	12	22	—10	.18	.34	—0.16
Deaths of mothers per 1,000 births and stillbirths.....				7.21	13.13	—5.92
Deaths of children in first year of life.....	102	133	—31	1.59	2.09	—0.50
Deaths in first year per 1,000 live births.....				62.88	82.30	—19.42
VIOLENCE:						
Accidents.....	39	52	—13	.61	.82	—0.21
Homicides.....	5	—	+5	.08	—	+0.08
Suicides.....	5	5	—	.08	.08	—
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	5	5	—	.08	.08	—
Broncho-pneumonia.....	30	23	+7	.47	.36	+0.11
Cancer.....	105	96	+9	1.63	1.51	+0.12
Cirrhosis of the liver.....	2	3	—1	.03	.05	—0.02
Diabetes mellitus.....	9	20	—11	.14	.31	—0.17
Diarrhoeal diseases, children under two years of age.....	28	36	—8	.44	.56	—0.12

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON, — Concluded.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:						
Anterior poliomyelitis.....Cases...	4	15	—11	.06	.23	— .17
Deaths..	1	3	—2	.01	.05	— .04
Cerebro-spinal meningitis.....Cases...	1	2	—1	.01	.03	— .02
Deaths..	1	—	+1	.01	—	+ .01
Diphtheria.....Cases...	233	124	+109	3.63	1.95	+1 .68
Deaths..	13	9	+4	.20	.14	+ .06
Influenza.....Cases...	7	1	+6	.11	.01	— .10
Deaths..	—	1	—1	—	.01	— .01
Measles.....Cases...	89	120	—31	1.39	1.88	— .49
Deaths..	2	4	—2	.03	.06	— .03
Pneumonia (lobar).....Cases...	32	27	+5	.50	.42	+ .08
Deaths..	10	14	—4	.15	.22	— .07
Scarlet fever.....Cases...	74	51	+23	1.15	.80	+ .35
Deaths..	1	5	—4	.01	.08	— .07
Tuberculosis (pulmonary).....Cases...	135	165	—30	2.10	2.59	— .49
Deaths..	49	55	—6	.76	.86	— .10
Tuberculosis (other forms).....Cases...	28	15	+13	.44	.23	+ .27
Deaths..	8	5	+3	.12	.08	+ .04
Typhoid fever.....Cases...	18	18	—	.28	.28	—
Deaths..	—	1	—1	—	.01	— .01
Whooping cough.....Cases...	54	159	—105	.84	2.50	—1.66
Deaths..	2	11	—9	.03	.17	— .14

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

MONTHLY BULLETIN HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

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NO. 10

CONVENTION ACTIVITIES IN BOSTON.

American Public Health Association.

The second week of October found nine hundred visitors in Boston from Canada, Cuba, Mexico, and also from Europe, besides from nearly every state of the United States, in attendance at the fifty-second annual meeting of the American Public Health Association. Boston should congratulate itself that the governing council of the association saw fit at its last annual meeting to select Boston as the place of the recent meeting, and Boston hopes that its reception of the delegates and members at the convention warrants the return of the association to Boston at some time in the future. Boston is pleased that they came here and has profited by their visit.

The meeting rooms were all located close to both the convention and local committee headquarters, and made it convenient for all members to attend the various section and general sessions. Decidedly interesting and informative discussions were presented on all aspects of public health activity during the several days the convention was in session. His Honor James M. Curley, Mayor of Boston, and Hon. James Jackson, representing his Excellency the

Governor, represented the city and state in addresses of welcome on the opening general session. Dr. David L. Edsall, dean, Harvard University School of Public Health, and Dr. Francis X. Mahoney, Health Commissioner of Boston, represented the local committee in welcoming the members and fellows to Boston. Dr. Charles V. Chapin, Superintendent of Health, Providence, R. I., and Dr. Peter H. Bryce, of Canada, responded to the addresses of welcome, prior to the presidential address by Dr. E. C. Levy of New York. All section meetings were held during the mornings and afternoons of the four days of the convention, with general sessions on Monday and Wednesday evenings.

Sir Thomas Oliver, Newcastle-on-Tyne, England, very ably presented an address on "American Leadership in Safety and Sanitation in Modern Industries," and digressed sufficiently from his main topic to tell of the conditions in industries which confronted England and other European countries. It was a delightfully discussed topic, lasting about one hour, and was presented in an illustrative manner by reason of the citation of specific instances showing the relation of supervision in matters affecting health in industry.

Considerable progress seems to have been made in connection with the centralization of activities of private health agencies. It has long been recognized, more or less openly, that the activities of private health agencies have much vital significance in the promotion of health in any community. More and more, year after year, public health officials have come to see the wisdom of encouraging these activities with a view to co-ordinating in a centralized manner the efforts of several independent groups of workers engaged in the same general type of health conservation. There is, of course, a very clearly defined line of demarcation between the activities of the official health agency and the private health agency, for very obvious reasons. This feature of health conservation, however, does not prevent co-ordinated efforts between both classes, or disturb the relationship which each group or class must separately maintain, as may be inferred from the remarks of Dr. Linsly R. Williams, managing director, National Tuberculosis Association, New York City, at the second general session of the American Public Health Association on Wednesday evening, October 11. He described very fully the progress made toward centralizing the administrative offices of private health agencies, resulting in the location of several large agencies in one building at 370 Seventh Avenue, New York City. There is co-operation between all, suggestions made within the group as to annual budgets, expenditures, policies, and the like, and duplication of effort will eventually reach the irreducible minimum. The success which the efforts of workers

like Doctor Williams has met in this connection will spur him and others interested to greater endeavor to crown their accomplishments by the achievement of the desired ultimate object, which is the centralization of all private health agencies in one administrative building from which all directive instructions will issue.

Comments on the efforts of public health officials, particularly the medical profession, by George E. Vincent, president of the Rockefeller Foundation, New York, was not so critical as it was, intentionally, humorous. In spite of the humor and the facility of expression with which comment on the apparent inability of the lay person to grasp the mysteries of medicine was made, the underlying theme of the discussion appeared to be approval of the methods used to educate the public in all matters affecting health. Health education is the key which opens the door to knowledge among those who do not understand the reasons for the many public activities with respect to health conservation, and this fact was stressed by the speaker, in his inimitable way. Thus the way to reach the public seems to have been pointed out, that is, to educate them as to the best way to preserve their health, to keep them posted on new developments, to elucidate technical situations in an illustrative manner, to further their interest in activities pertaining to public health.

The American Public Health Association is to be congratulated on having within its membership such a distinguished representation of the medical profession as appeared in Boston. If they came here to learn of changes in ideas and methods and developments during the past year throughout the countries represented in health matters, it is certain that they also left with the health authorities of Boston certain of their own ideas, methods and plans for better conservation of health in local communities.

SOME OF THE LESSONS OF THE HEALTH SHOW.

The Boston Health Show is over, but there is no sufficient reason why the lessons in the preservation of good health which were given there in one manner or another should not be productive of much good to those who attended. The trend of modern medicine is not so much the pursuance of a course of curative correction, but rather a scientific enlightenment of the advantages of prevention. This is especially interesting from the argumentative standpoint for the reason that a curative process presupposes the existence of a condition needing correction or adjustment, while prevention is the application of scientific knowledge with respect to human illnesses and susceptibility to diseases among humans in such a manner as to preclude

the necessity for curative processes. Prevention of disease is progress in the right direction, and the greater the educational scope of such health conservation methods, the greater and more beneficial to the public is the lesson taught.

What did we learn at the Health Show? Was it really a Health Show? Those things that we should have learned at the Health Show convince us that it really was a Health Show, because the lesson of how to keep healthy was shown as a contrast with the effects of ill health. Let us review the situation from the ground up, as it were. A special feature of the show was a Better Baby Contest. There were some 750 babies whose conditions of health in the opinions of parents warranted their entrance in the contest. Experts in child welfare were the judges, scientific measurements and tests determined as the result of experience to be standards for the desirable perfect child were the guides to be followed. Eyes, ears, throats, noses, weights, lung capacities and development, breathing apparatus, proportional development, mental equipment, and disposition of the child were the bypaths of comparison along which the *perfect baby* travelled to aid in the selection of his nearest physical counterpart. Babies found wanting in any one or many of these standards of comparison were classed according to the average obtained with relation to the standard, until the contest became, as in all such contests, one of elimination. A good baby was found today, and considered to be nearest to perfection, but next day a better baby took its place, as was natural, until the *best* baby was selected as the nearest physical counterpart to the *perfect baby*. So, to start with, we have a *selected perfect baby*. That is the initial milestone on the road to progressive manhood at which we all had, or should have had, our beginning. A *perfect baby*! Is it not a good beginning? Is it not a slogan worthy of adoption among all races, nations and creeds? It certainly should not be denied.

What happened next? We approach the second milestone in the selective process — infant welfare, to preserve the good health of the perfect baby, to instill into the minds of the parents the necessity for the proper upbringing of that baby, to see to it that he has the proper kind of nourishment, sanitary environment, sufficient medical aids to growth and development, physical and mental, during his pre-school period, so that his contact with other children upon entering the next milestone of progress — the school age — will find him ready and fit for further progress along the road to health, which is, in the final analysis, the road to happiness.

What do we find in this school age of interest to the parents of this selected perfect baby? We find scientific medical inspection of school children. Vaccination is insisted upon as a preliminary pre-

caution to contact with other children, for their safety and for his. Next we find an examination of eyes, ears, throat and teeth; and again an examination of organic development of heart and lungs. The perfect baby, of course, satisfactorily passes all these tests. He is, however, surrounded by his compatriots in the progressive circle who did not quite measure up to his fine standards in the comparative selective process. Certain defects, perhaps only minor in character, presented themselves in these others which made it imperative that corrective measures be taken. The wheels of school medical inspection methods begin to revolve and the child with defects needing attention is directed to clinics for eyes and ears and throat condition, for care of the teeth, and if necessary for care, advice and treatment for organic conditions. The parent is advised concerning the child's state of health, and urged to guard against certain tendencies because of it. Wise parents follow such advice, and all parents should be so wise, for the splendid reason that the suggested treatment of a minor defective condition incipiently injurious to the child's health will preclude the necessity for later curative processes necessary if such suggestions and advice are not followed.

So we next have the child of school age emerging into the more enlightened highway of knowledge gained along the early milestones of progress with a good chance for enjoyment of health, which means good health. That brings us to the stepping-stones of life — good posture, selected diet, regulated hours of rest and recreation, proper reading for mental development, sane exercise for physical improvement, good ventilation of sleeping rooms and living quarters and schoolrooms, moderation in all the things which might induce habit-forming tendencies, self-reliance and intelligent educational pursuits. Thus we have learned how to sit, stand and walk erect, to eat only the nourishing foods, to indulge in no overwork, overstudy or overexertion, to get plenty of outdoor air, and to do all things that tend to conserve and not break down good health, that have made us happy, healthy and wise.

The next milestone of human progress appears after we have finished preparatory school studies. We mingle with the people around us, and are apt to forget easily or carelessly the lessons which we learned in school and childhood days as to the best method to promote good health and keep it. Why should this be? Is it not better for ourselves if we make an annual physical examination as important a part of our routine of living as, for instance, the vacation which we feel is annually necessary for rest and recreative purposes? It should be so considered, if it is not. This annual physical examination may discover within us some latent incipient disarrangement of the human system which when taken in hand seasonably will

result in the building up of the machine which is so vital to success and enjoyment of life, happiness and contentment. So this milestone is a protracted one that carries us along the road of life to its termination, either happily, healthily and contentedly, or unhappily, discontented and in such a state of mediocre health that we are deluded into believing that we really are in good health, when an honest conception of what it really means will convince us that we are fooling no one but ourselves, and perhaps not even doing that, if we are honest with ourselves. That is the reason that we have urged upon us year after year by medical experts and proponents of public health conservation the necessity for freedom from worry, lack of indulgence in physical overexertion which is detrimental to health and reduces within the body that natural resistance which is one of the strongest powers against disease that we know of. That is why we are urged to consult our family physician when we discover something which to the lay mind, uneducated in the mysteries of the human body, is a puzzle or an annoyance. The physician can tell us what is wrong, and how to correct it, but we should not wait for that puzzling or disturbing "something or other," but ward off such puzzling disturbances by an annual physical examination.

Again the dentists use the susceptibility of the people to laxity in matters concerning their health by calling our attention to the fact that an examination of our teeth twice a year will prevent ultimate decay of teeth which may be incipiently unsound if not attended to at frequent intervals. The dentists tell us how economical such a practice is, and it certainly is economy of the very highest kind to conserve our health, in all respects, by a strict watch upon it, by careful living.

We are told to live in clean, sanitary surroundings, to get plenty of fresh air, to take exercise regularly, and to sleep regularly and watch our diet. All of these advices are good, are splendid, but is it not essentially an element that will promote the best results by following these advices and suggestions as to health, if we place our bodies in a healthful receptive condition by an annual physical examination which will keep us always up to standard? It seems to all of us to be the best way to profit by the lessons we learned in school and otherwise as to health if we find out annually just how rigorously the progress upon the road to happiness has attacked our peculiar human system. If we find something needing correction it can be easily corrected when discovered in time; and if we find something needing correction immediately, it is well that our annual physical examination has found this condition for us before it becomes too late to improve our health.

So it is that the perfect baby should grow up, travel on life's high-

way, and become the perfect man or woman by a strict adherence to the principles laid down to promote good health. To keep healthy is to keep contented, happy and to enjoy life.

Prize Winners of Better Babies' Contest.

NAME.	Age.	Score, Per Cent.	Class.
Lloyd Allsion Jenkins.....	45 months.	97.0	12 to 72 months.
Muriel Louise Coyle.....	60 months.	99.5	12 to 72 months.
Robert Louis Altshuler.....	8 months.	98.0	6 to 12 months.
Evelyn Berman.....	8 months.	96.5	6 to 12 months.
Julian Leroy Pearlman.....	18 months.	96.5	12 to 24 months.
Francis Albert Warner.....	15 months.	96.5	12 to 24 months.
Coralie Webster Stanley.....	12 months.	97.5	12 to 24 months.
Carl Hyalmer Foss, Jr.....	34 months.	96.7	24 to 36 months.
Barbara Louise Replogle.....	35 months.	98.8	24 to 36 months.
Robert John Baratta.....	45 months.	95.3	36 to 48 months.
Evelyn Florence Borstell.....	36 months.	97.9	36 to 48 months.
Daniel Daley.....	54 months.	96.9	48 to 60 months.
Ruth Mulloney.....	52 months.	98.5	48 to 60 months.
Manuel J. Barry.....	61 months.	94.9	60 to 72 months..
Ellen Agnes Regan.....	72 months.	96.6	60 to 72 months.
Beverly and Barbara Johnson.....	8 months.	95.6	Twins.
John and Paul MacDonald.....	18 months.	95.4	Twins.
Pollyanna and James Stenke.....	37 months.	93.5	Twins.
Noreene, Winnifred and John Cregan.	18 months.	90.6	Triplets.
Heien Martin Holiday.....	58 months.	88.9	Colored children 6 to 72 months.

Silver cup awarded to Mrs. Arthur J. Coyle, mother of Muriel Louise Coyle, highest scoring child between the ages of 12 to 72 months.

SUGGESTED STANDARD RATPROOFING PROVISIONS FOR BUILDING CODES OF NEW ENGLAND SEAPORTS.

By New England Committee on Plague Prevention and
Rodent Control, 177 Milk Street, Boston, Mass.

1. Every new building or existing building undergoing major alterations and located within the area subject to the building laws, shall be made properly ratproof so as to be impervious to the ingress of rats as far as practicable.

2. The foundations or cellar walls of every building shall be of brick, stone, concrete or other approved materials not penetrable by

rodents. They shall be of sufficient thickness to meet all building code requirements and in no case be less than 6 inches thick. Such foundations or cellar walls shall extend at least 2 feet below any surface exposed to the frost and shall meet the floor of the building above closely and without any intervening spaces, provided that for wooden frame constructions the foundation walls shall extend at least 12 inches above the ground surface.

3. The floor of every cellar or full floor area (when no cellar exists and the first floor is not over 18 inches above the ground surface, and the space beneath is not free and open on three sides) shall be made of concrete at least 3 inches thick or of other approved material of equal impenetrability, provided that if the ground surface is solid rock no floor is required. Wooden floors on top of concrete shall rest on the concrete without intervening space.

4. All openings in foundations, cellars and basements, except for doors and hatchways, shall be completely covered with metal screens or wire mesh having openings of not more than $\frac{1}{2}$ inch and of material not less than 12-gauge in thickness.

5. All doors and hatches to basements and cellars shall fit tightly and be covered at the bottom with a strip of galvanized metal to a height of at least 6 inches.

6. All wall or floor spaces shall be closed with cement mortar or other material impervious to rats, which closure shall extend the full thickness of the wall or floor and extend upward at least 12 inches above the floor level in the case of double walls, and 3 inches horizontally from the walls in the case of the spaces between floor and ceiling.

7. All accidental and unnecessary spaces and holes and other openings, such as those for pipes, plumbing, and wire conduits, with the exception of doors and windows, in every building, shall be closed with cement mortar or other material impervious to rats or screened with wire having not more than $\frac{1}{2}$ -inch mesh and of not less than 12-gauge.

Ventilators and drain pipes, liable to give ingress or egress to rodents, shall be adequately screened with wire having not more than $\frac{1}{2}$ -inch mesh and of not less than 12-gauge.

8. Roofs shall be made thoroughly ratproof. Doors and latches shall fit tightly and be covered at the bottom with metallic strips for an upward distance of at least 6 inches. Ventilators, skylight openings and all other roof openings capable of giving ingress to rodents shall be screened with wire having not more than $\frac{1}{2}$ -inch mesh and of not less than 12-gauge.

9. Temporary structures, within the building limits, of not more than 800 square feet in area may be ratproofed by elevating

at least 18 inches above the ground, the distance between the ground and the sills of the structure being free and open on at least three sides of the building in lieu of a concrete floor and foundation walls.

10. Wharves and structures thereupon shall be constructed in a thoroughly ratproof manner. The floors shall preferably be of concrete or asphalt at least 4 inches in thickness. If of wood, except in case of completely open wharves, the floors shall consist of a double layer of tongued and grooved planks between which is placed a layer of galvanized-iron wire cloth, not less than 20-gauge nor greater than $\frac{1}{2}$ -inch mesh. Double walls shall be limited as far as possible. When such are necessary they shall have a base of concrete at least 18 inches high and 4 inches thick. Small structures and office houses on wharves shall be properly ratproofed.

11. In premises, having basements, which are used for the storage, preparation or sale of foodstuffs, the floor above the plastered or fireproofed basement ceiling shall be constructed of two layers of 1-inch tongued and grooved lumber driven tight, between which is placed a layer of galvanized-iron wire cloth not less than 20-gauge nor greater than $\frac{1}{2}$ -inch mesh. This wire cloth shall extend upward on the side walls not less than 8 inches and be covered with the baseboard.

12. Buildings of ratproof construction shall be maintained at all times in proper repair in order that there may be no deterioration in the ratproofing details of the structures. It shall be the duty of the building inspector to enforce this provision to the best of his ability.

DISPENSING OF NONALCOHOLIC BEVERAGES.

During the early part of the summer the Health Commissioner called into conference with him all of the manufacturers and bottlers of carbonated nonalcoholic beverages in Boston for the express purposes of reminding them of the requirements which they must comply with so far as the production and distribution of their various products is concerned. The conference was well attended; questions were asked concerning the attitude of the department on matters which had been authoritatively decided on interpretation of the rules and regulations. Suggestions were freely given, and seemed to have been the result of interest of the conferees in the distribution of a clean, wholesome product, made under sanitary conditions. In spite of this recent conference, however, the department has had occasion to suspend two licenses recently for violations of the rules and regulations.

It cannot be too strongly impressed upon all such manufacturers and bottlers that there must be an absolute compliance with

rules and regulations governing the conduct of their business, and it is regretted that it is necessary to adopt such a summary measure as the suspension of a license to do business to make them realize the necessity for the appearance on the market of a clean, wholesome article.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of the September survey made of market milk sold in Boston by dealers and chain stores. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.39	3.70	38
Anderson, Oscar A.....	12.34	3.90	54
Antetomaso, Peter.....	12.71	4.10	9
Barden, R., Creamery Company.....	13.33	4.55	86
Barron, Clarence W.....	15.08	5.50	61
Barry, Michael F.....	12.13	3.62	134
Bemis, Henry E.....	12.28	3.58	32
Bergmann, John H.....	12.81	4.13	29
Bolio, Mary J.....	13.48	4.44	14
Bowditch, E. F., Estate.....	12.55	3.75	10
Brandley, P. J. & T. J.....	12.67	4.05	10
Brandon Farms Milk Company.....	12.22	3.65	39
Brookdale Creamery Company.....	12.55	3.90	22
Burns, James.....	12.30	3.77	19
Casey, James D.....	12.05	3.52	12
Cashin, James F.....	12.35	3.85	60
Chapin, George L.....	12.18	3.65	20
Childs Brothers.....	12.48	3.76	40
Clark, Levi.....	11.98	3.50	100
Cohen, Benjamin.....	12.30	3.65	65
Corkery, J. H.....	12.03	3.50	438
Creedon & Crowell.....	12.34	3.90	105
Cummings, F. S., Company.....	12.23	3.63	15
Cunningham, Paul.....	13.25	4.10	20
Cusick, William H.....	12.09	3.60	295
Deerfoot Farms Milk Company.....	12.28	3.65	10
Denehy, Timothy.....	12.56	3.90	33

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
DiMauro, Gaetano.....	12.19	3.70	29
Driscoll, William B., Company.....	12.47	3.77	9
Duggan Brothers.....	12.54	3.90	49
Edgerly, Frank S.....	12.48	3.85	114
Elm Spring Farm Milk Company.....	12.29	3.80	27
English, John.....	12.68	3.80	16
Ferguson, Malcolm D.....	12.13	3.60	26
Floyd Milk Company.....	12.33	3.86	108
Fortune & Allen.....	12.45	3.92	42
Garvin, Charles E.....	13.42	4.80	134
Giroux, J. E., & Co.....	12.20	3.72	127
Griffin Brothers.....	12.71	4.10	12
Griffin, Joseph L.....	12.50	3.88	11
Gushee, W. S. & C. W.....	12.17	3.55	14
Hagar, J. M., & Sons.....	12.28	3.72	28
Hancock, T. G., Company.....	12.35	3.76	209
Herlihy Brothers.....	12.24	3.80	59
Hickey, Martin.....	12.47	3.70	96
Holden, John E.....	12.49	3.82	15
Hood, H. P., & Sons, Inc.....	12.41	3.86	67
Hurley, Michael F.....	12.40	3.90	49
Jones, William T., & Co., Inc.....	12.48	3.85	30
Kendall Brothers.....	12.14	3.48	32
Kennedy, Robert J., Jr.....	12.04	3.70	420
Kingston, Samuel.....	13.04	4.06	12
Klawe & Freeman.....	13.60	4.25	29
Knapp, George J.....	12.57	3.90	24
Lang, Michael J.....	12.36	3.70	620
Larkin, Patrick.....	13.00	4.00	30
Larsson, Charles.....	12.21	3.63	20
Lesser, Joseph.....	12.65	3.90	418
Lincoln Farms, Inc.....	13.46	4.80	32
Lubin, Felix.....	12.37	3.73	180
Lyndonville Creamery Company.....	12.50	3.60	216
Magee, Nellie A.....	12.28	3.40	42
Manning, Peter E.....	11.94	3.45	360
Maple Farm Milk Company.....	12.41	3.78	36
McAdams, John F.....	12.42	3.86	65
McKernan, John.....	12.66	3.77	70
Moore, Peter.....	12.24	3.80	305

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Morgan, George D., & Sons.....	12.66	4.60	56
Munchbach, George	12.12	3.45	89
Newton & Pope.....	12.29	3.66	192
Noble, W. F., & Sons.....	12.18	3.93	10
Raycraft, Benjamin F.....	12.48	3.81	17
Robinson, Albert J.....	12.57	3.90	24
Robinson, James A.....	12.18	3.60	36
Runkle, John C.....	13.40	4.35	20
Schuste, Adam.....	12.40	3.75	76
Seven Oaks Dairy Company.....	12.36	3.81	22
Shick, Jacob.....	11.92	3.43	71
Smith & Lynch.....	12.14	3.62	14
Somerset Farms Milk Company.....	13.00	4.20	10
Sterling Farms Milk Company.....	12.38	3.75	20
Stone, Howard L.....	12.13	3.50	70
Stuart, Wallis E.....	12.46	3.83	9
Sullivan, John D.....	12.52	3.50	74
Sullivan, John L.....	12.50	4.06	70
Turner Centre System, Inc.....	12.38	3.71	27
Upland Farms Milk Company.....	15.02	5.50	10
Vartanian, K.....	12.08	3.57	18
Vartanian, Setrag.....	12.19	3.65	50
Walker-Gordon Milk Company.....	12.68	3.95	7
Ware, George H.....	12.75	3.90	19
Warren, Cornelia.....	13.31	4.45	186
Werner, Ferdinand.....	12.19	3.65	42
Weiler, E., & Sons.....	12.63	4.06	23
Westwood Farms Milk Company.....	12.26	3.61	22
White Brothers.....	12.30	3.60	177
Whiting Milk Companies.....	12.25	3.66	54
Whittemore, Warner D.....	12.54	3.90	10
Wiswall, Granville A.....	12.32	3.75	25
Wittenberg & Co.....	12.39	3.62	120
Woodland, Charles.....	12.10	3.60	86

At one time it was considered a disgrace to be afflicted with tuberculosis, but happily this time has passed, and this difficulty from ignorance and presumption has been thrown off, so that with public and private sanatoria people are willing to take treatment and to live according to the standards set for their recovery.

CHAIN STORE MILK.

NAME OF DEALER.	Supplied by	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc...	12.40	3.70	115
The Cloverdale Company.....	Turner Centre System, Inc.	12.44	3.80	296
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company...	12.88	4.10	10
Co-operative Grocery Company....	J. M. Hagar & Sons.....	12.45	3.67	15
Economy Grocery Stores.....	Turner Centre System, Inc.	12.31	3.60	25
First National Stores, Ltd.....	Turner Centre System, Inc.	12.27	3.70	32
Morgan Brothers Company.....	Whiting Milk Companies.	12.14	3.62	161
M. O'Keeffe, Inc.....	J. M. Hagar & Sons.....	12.38	3.57	15
Rose Tea Company.....	H. P. Hood & Sons, Inc..	12.39	3.85	183
M. Winer Company.....	Hyman Winer.....	12.36	3.55	78

GREETINGS TO THE MOTHERCRAFT AND CHILD WELFARE CONFERENCE, EXETER STREET THEATER, WEDNESDAY, OCTOBER 10, 1923, BY HEALTH COMMISSIONER MAHONEY.

We are so constituted that care and responsibility for the welfare of somebody else seems to be essential to a normal human life. This is true with respect both to men and women. An active, intelligent interest in the welfare of others seems to be necessary for the stability of our nervous and moral balance. Unhappy nervous wrecks are very largely made up of self-centered persons who have been dominated by their own selfishness and who have sought to subordinate interest in others to their own selfish desires. In normal women, even in the normal girl child, this innate need of a feeling of responsibility for the welfare of others finds its natural expression in a desire to watch over, do for and protect a being which needs such care because it is immature and helpless. It may be that the little girl finds opportunity to devote herself to a chicken, a puppy, or perhaps to a real baby, but so strong is this maternal instinct that from prehistoric times down to the present, among savages or in our enlightened homes, the healthy normal girl child will cherish even the image of a young being, a doll or a teddy bear.

Little good comes to the world from unnatural men or women. As physicians and as public officials we are constantly being called on to deal with women in whom the normal maternal instinct is

absent, warped or distorted as a part of a defective mentality, as one phase of feeble-mindedness. We see perhaps somewhat different but no less serious results from the subjection of the young girl child to influences, false ideas and bad examples, or to a so-called education which practically serves to suppress and pervert the maternal instinct. It is dangerous to tamper with normal healthy instincts. Even the feeble-minded delinquent may perhaps be set on the path of future usefulness if one succeeds in developing in her a maternal affection for a child. What is normal and healthy is to be encouraged. No nation will long survive if the women are unwilling to assume the responsibilities of a home and provide it with a mother's love.

I want to take this opportunity that you have given me to stress the effect which your mothercraft movement, if properly directed, is bound to have on the young girls themselves. You should not forget that in the movement you are carrying forward you can counteract pernicious influences which surround the modern girls. You are tending to make them motherly, womanly women just as the Boy Scout movement aims to make boys chivalrous, manly men.

In emphasizing its benefits to the girls I am no less mindful of the value of the mothercraft movement to the baby. It is hard to do very much for a congenitally abnormal, defective infant, but it is easy to spoil a baby which was born normal and healthy. Yet, as has been pointed out, a large proportion of young babies the world over have to take their chances with the girl children in the family. The question may be asked how babies have managed to get along so well. The answer is they haven't managed to get along well. The infant mortality has been too high and permanent results of improper care in infancy have been too common. Your mothercraft idea for making conditions better is sensible and practicable.

But I am going to presume on twenty-five years of experience with child hygiene to venture to temper your enthusiasm with a caution in the shape of a professional confession. We do not know all about the best way to bring up babies even yet. I can point out poor physical specimens of adult human beings who are examples of normal, healthy babies which were spoiled by too rigid adherence on the part of their parents to the child hygiene teachings of twenty-five years ago. We know now how they were spoiled. In our anxiety to keep germs out of them we deprived them of certain elusive food elements which we have since come to refer to as vitamins. We are still horrified, scandalized or terrified according to our point of view on seeing a baby crawl around on the floor or in the street and put all sorts of dirty material in his mouth. But some authorities venture to suggest that this may be the natural way for the baby to vaccinate himself, as it were, against the diseases of his environment, and that

perhaps even small frequent doses of tubercle bacilli may really serve to build up a resistance to tuberculosis provided the baby does not get an overdose. We have seen the big, healthy looking baby die of pneumonia in a few days with hardly a fight. We are beginning to think we know why. But why an underweight baby may pull through measles, whooping cough and pneumonia in rapid succession is still a good deal of a mystery.

We have, however, learned many things in the last twenty-five years. We know that food is the essential for the physical well-being and development of a baby; that the amount, the kind, the variety and even the physical character of the food are all important considerations. We know that a diet which is suitable for most children may not be suitable for some individuals. But we are getting a good deal of our knowledge regarding food and nutrition in general in the same sort of a kaleidoscopic way that we are being presented with our supposed information regarding vitamins. About once a month we are told something new or are told that something which we have been told is so, is not so.

Nevertheless we are steadily learning all the time, and in spite of the mystery of the ability of a child to survive its dirt-eating age we know that it is dangerous to allow the organisms of certain human diseases to get into the baby's food and drink. We know that our great reduction in infant mortality is chiefly due to a safe public water supply, the pasteurization of cow's milk and a sewerage system which lessens the danger of contamination of the baby's food by dirty fingers or flies. Having thus warned you that there are limitations to our knowledge I am going to leave it to the others on the program to tell you what we really know about taking care of babies.

THE DIAGNOSIS AND TREATMENT OF JUVENILE TUBERCULOSIS.

By JOSEPH GARLAND, M. D.

Etiology.

Juvenile tuberculosis is of human or bovine origin. The relative proportion of cases arising from those two types varies greatly with locality and age and is largely dependent on the purity of the milk supply. Recent investigations tend to show that the bovine organism would seem to be the causative factor in about $33\frac{1}{3}$ per cent of the cases in this locality. According to Hamburger's figures, the incidence of tuberculosis increases greatly as the infant begins to come into contact with his surroundings. Contributory factors are poverty and crowding and lowered resistance following acute infectious disease, particularly whooping cough and measles. Milk and

direct transmission from sputum containing tubercle bacilli and from contact with tuberculous individuals are the chief factors in its spread.

Pathology.

Pirquet divides tuberculosis in childhood into three stages. First in his classification comes the primary lesion. From this the mediastinal lymph nodes are infected, with resulting definite secondary tuberculous lesions. In the ingested type the mesenteric glands are involved. The tertiary lesion results from a blood-borne infection, generally miliary and fatal, occasionally, in older children, more chronic, giving rise to bone and joint lesions or to solitary tubercles.

On the whole it may generally be taken for granted that a primary pulmonary lesion is human in origin and extends indirectly via the lymph channels to infect the bronchial lymph nodes, directly to involve the pleura, by the air passages to give rise to a broncho-pneumonia, by the alimentary tract to infect tonsils, cervical and mesenteric lymph nodes and peritoneum, or by the blood stream to cause acute miliary tuberculosis or tuberculosis of bones, joints, etc.

Bovine tuberculosis is generally if not always primary in the alimentary tract (including the tonsils), infecting the mesenteric lymph nodes via the lymph channels, the peritoneum directly, and all the other parts of the body via the blood stream.

The manifestations of tuberculosis in childhood differ considerably from those encountered in the adult. Pulmonary tuberculosis, which is rare in early childhood, is most frequently broncho-pneumonic or else the lungs are involved along with other organs in a general miliary process. Chronic phthisis is rarely encountered. Tuberculous pleurisy is relatively less frequent in early childhood than in later childhood or in adult life. It is, after all, in the primary stages that juvenile tuberculosis is of the greatest importance, for it is in this stage that its recognition is of most value, most productive of benefit to the patient, and most often overlooked.

Diagnosis.

In making a diagnosis with tuberculosis in view, three questions must be answered:

1. Has the child been infected with tuberculosis?
2. Is the disease active, latent or cured?
3. What is the site of the disease?

1. The tuberculin skin reaction — the well known Von Pirquet test — will generally answer the first question, and its importance must be recognized whatever the age of the child, for no matter at what age it occurs the positive test always means infection with tubercle bacillus. A *negative* reaction even when tuberculosis is

present may result from an overwhelming tuberculous infection and occasionally follows acute illnesses such as measles, etc., or may be due to errors in technique.

2. Activity of the disease is indicated by fever, loss of strength and energy, undue fatigue, lack of appetite and failure to gain in weight. Various other skin and ocular disturbances, such as skin tuberculides or corneal phlyctenules, indicate an underlying tuberculous infection.

3. Tuberculosis of the bronchial lymph nodes is the commonest site of the disease in children. This condition, however, is easily overlooked and, on the other hand, often wrongly diagnosed. It is well to bear in mind and to consider carefully the following five points before making a definite diagnosis of bronchial gland tuberculosis.

(1.) There should be a positive skin tuberculin test unless the child has recently recovered from measles or any of the other acute infections which might lead to a negative test, or unless the child has manifest tuberculosis.

(2.) A definite history of exposure from either human or bovine sources of tuberculosis is an important point, if present. The maxim that "Absence of proof is not proof of absence" holds especially true in regard to this, however. Because it cannot be shown, for instance, that a given child has not been exposed to tuberculosis, either human or bovine, is, of course, no proof that the child is not tuberculous.

(3.) Constitutional signs and symptoms of some kind, particularly loss of weight or failure to gain weight, along with "ease of tire" or undue fatigue, fever or rapid pulse are usually present. The combination of a failure to gain weight over a period of six months along with undue fatigue or ease of tire is of particular importance.

(4.) There should be enlarged bronchial lymph nodes seen on X-ray examination interpreted by an expert before a definite diagnosis can be made. It should be borne in mind, however, that the X-ray simply shows whether or not such glands are *enlarged* but does not give conclusive evidence as to whether or not they are tuberculous. This point must be decided by other means.

(5.) Other causes by means of which the bronchial glands might have become enlarged such as (a) infected tonsils or adenoids, (b) carious teeth, (c) intestinal disturbances, especially chronic appendicitis, and (d) other infections such as broncho-pneumonia, measles, whooping cough, acute middle ear disease, etc., should be looked for and carefully considered. This point, while a negative one, is of distinct importance.

Treatment.

If the disease is found to be active, prolonged rest in bed along with heliotherapy are the fundamentals of treatment. A well balanced simple diet containing plenty of iron-bearing foods suitable to the individual child's digestion is all that is required in the way of food. Lunches in the middle of the morning and in the middle of the afternoon might well be omitted in most instances. There should be no "stuffing" process unless the child is markedly underweight.

Iron is occasionally of value but cod liver oil is by all means the best tonic for children. Sunlight treatment along the lines laid down by Rollier, modified to suit New England conditions under the physician's careful supervision, is probably the biggest single factor in the production of good results.

The Prendergast Preventorium maintained by the Boston Tuberculosis Association is an experiment station for observing the results of proper hygienic care and treatment along the lines mentioned above of children in the first stages of tuberculous infection.

SUMMARY OF THE WORK, SEPTEMBER, 1923.

BUREAU OF ADMINISTRATION.

	Sept.	Aug.		Sept.	Aug.
Hearings authorized	3	0	Contracts	0	1
Conferences	0	4	Special drafts	0	2
Prosecutions ordered	25	15	Personnel:		
Dump applications ap- proved	2	1	Appointments	7	9
Disapproved	0	1	Probationary	4	4
Offensive trades ap- proved	3	0	Provisional	0	2
Legal notices	212	320	Temporary	3	3
Antitoxin station disap- proved	0	1	Transfers from de- partment	0	2
Forcible removals	0	1	Rating changed	1	1
Lying-In Hospitals cer- tified	1	2	Leaves of absence	0	0
Vacate notices	1	0	Retirements	0	0
			Resignations	0	0
			Beverage licenses ap- proved	1	0

LICENSES, PERMITS, ETC., ISSUED.

	Sept.	Aug.		Sept.	Aug.
Burial permits	845	853	Denatured alcohol li- censes	5	4
Milk licenses	123	146	Manicure-massage:		
Peddlers' licenses:			Granted	42	60
Granted	86	125	Dumps	0	0
Hen licenses granted	31	67	Beverage licenses	1	9
Permit for roosters granted	0	0	Offensive trade license	1	1
Stable permit granted finally	1	1			

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Sept.	Aug.		Sept.	Aug.
Visits by medical inspectors	2,246	1,504	Vaccination certificates	438	27
Deaths investigated	18	31	Cases brought to Boston for treatment	47	41
Vaccinations	506	243	Antitoxin administered	33	13

NURSING SERVICE.

	Sept.	Aug.
Communicable disease visits	2,327	2,413

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, SEPTEMBER, 1923.

SYPHILIS.

Current cases under investigation September 1, 1923	16
New cases assigned during the month	32
Total	<u>48</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	8
Further treatment unnecessary	0
Not located:	
Search abandoned	6
Under investigation September 30, 1923	34
Total	<u>48</u>

GONORRHEA.

Current cases under investigation September 1, 1923	37
New cases assigned during the month	111
Total	<u>148</u>

DISPOSITION OF CASES.

Located:	
Under treatment	7
Placed under treatment	9
Further treatment unnecessary	2
Not located:	
Search abandoned	33
Fraudulent use of name	0
Under investigation September 30, 1923	97
Total	<u>148</u>

SUMMARY.

Current cases under investigation September 1, 1923	53
New cases assigned during the month	143
Total	<u>196</u>

DISPOSITION OF CASES.

Located:	
Under treatment	7
Placed under treatment	17
Further treatment unnecessary	2
Not located:	
Search abandoned	39
Fraudulent use of name	0
Under investigation September 30, 1923	131
Total	<u>196</u>
Form letters mailed to above patients	137
Form letters unclaimed, returned from post office	47
Form letters accepted by patients	90
Venereal disease complaints	4
No evidence of disease	2
Under investigation	2
Visits by investigators	325

HEALTH UNIT (Blossom Street).

	Sept.	Aug.
Health Department proper:		
Vaccinations	280	342
Vaccination certificates issued	399	70
Antitoxin injections	0	0
Children examined for camps and day nurseries	6	72
Visits made by medical inspector	84	26
Dental clinic:		
Number of operations	684	0
Number of dismissals	129	0
Number of children treated	254	0
Cases visited by nurses:		
Medical	139	131
Babies	276	315
Complaints of unsanitary conditions	16	12
Visitors:		
Resident	11	11
Nonresident	3	1
General:		
Persons applying for information	375	321
Community Health Association:		
(a.) Baby Hygiene Association and Health Department		
Nurses:		
New babies admitted	26	30
Homes visited by nurses	359	535
Conferences:		
Number held	9	9
Attendance	241	349
(b.) Instructive District Nursing Association:		
Visits made by nurses	1,166	1,139
Boston Dispensary:		
Calls by district physician	27	21
Boston Sanatorium:		
Calls by nurses in district	498	683

Jewish Welfare Center:

Nutrition conferences:

	Sept.	Aug.
Number	*	3
Attendance	*	45

Nutrition classes:

Number	*	0
Attendance	*	0

CHILD HYGIENE DIVISION.

	New cases.	Old cases.
Visits	829	2,817
Feedings:		
Breast	462	1,548
Bottle	73	372
Bottle and breast	51	440
Condition:		
Excellent	46	265
Good	515	2,023
Fair	25	72
Defective conditions found:		
Skin diseases	0	1
Recommendations:		
Family doctor	0	1
Hospital	0	4
Milk station	4	5
Miscellaneous:		
Found not attending milk stations	0	1

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Sept.	Aug.
New reports	3,237	3,814
Stores inspected	3,809	4,190
Sanitary defects remedied	55	85
Complaints at office	51	44
Referred to Sanitary Division	4	13
Milk applications	80	107
Peddlers:		
Applications for licenses approved	78	124
Vehicles inspected and approved	514	626
Court cases	8	0
Laboratory Examinations:		
Bacteriological	5	2
Chemical	2	8

CONDEMNATIONS.

NOT REQUESTED.

Apricots	30 pounds	Chicory	400 pounds
Beef	50 pounds	Cocoa	50 pounds
Canned goods, miscella- neous	250 pounds	Corned beef	16 pounds
Candy	80 packages	Corned shoulder	155 pounds
Candy	78 pounds	Figs	56 bars
		Ham	26½ pounds

* Figures not available.

Herring	15 barrels	Poultry	7 pounds
Herring	2,400 pounds	Pork chops	1 pound
Hops	100 pounds	Prunes	372 cases
Lamb	6 pounds	Prunes	525 pounds
Livers	11	Spare ribs	95 pounds
Macaroni	300 pounds	Sweetbreads	35
Lobsters	21 pounds	Tongues	9
Oysters	31½ gallons	Tongues	76 pounds
Plucks	30	Veal	568 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	Sept.	Aug.		Sept.	Aug.
Cattle inspected	67	27	Sheep inspected	61	30
Calves inspected	1,008	1,193	Parts condemned	210	3
Swine inspected	3,414	3,784	Animals condemned	3	172

DAIRY DIVISION.

	Sept.	Aug.		Sept.	Aug.
Total inspections	737	1,042	Inactive	4	6
Dairies inspected	312	289	Total cattle inspected	4,388	3,993
Scoring above 50 *	192	162	Bacteriological examina-		
Scoring below	120	127	tions	0	542
With milk rooms	192	128	Inspection of milk plants		
Without milk rooms	120	161	and licensed dealers	421	205

* Passable mark.

BUREAU OF MILK INSPECTION.

	Sept.	Aug.		Sept.	Aug.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,044	824	Milk	584	510
Vinegar	37	10	Ice cream	86	41
Ice cream	2	19	Court cases	21	29
Butter	0	7	Fines	\$785	\$570
Miscellaneous	6	14			

SANITARY INSPECTION.

	Sept.	Aug.		Sept.	Aug.
Original inspections	1,289	1,459	Complaints	707	945
New reports	2,247	2,701	Court cases	18	15
Reinspections	5,016	6,987	Vacate notices	1	0
Legal notices served	187	270	Fines	\$25	\$174

BACTERIOLOGICAL LABORATORY.

	Sept.	Aug.
Examinations for diagnosis and release:		
Diphtheria	1,315	1,172
Tuberculosis	300	186
Typhoid	87	52
Gonorrhea	550	590
Gonorrheal Ophthalmia	59	55
Syphilis	1,198	1,204
Other examinations	32 *	30
Bacteriological examinations of milk	584	510
Bacteriological examinations of ice cream	86	41

* Malaria, 2; dog for rabies, 1; genito-urinary tuberculosis, 1; dark field examinations, 1; feces for typhoid, 4; blood culture for typhoid, 1; spinal fluid for meningococci, 1; virulence tests, 5; clams for pollution, 1; lamb for toxin, 1; dates for foreign matter, 1; kippered herring for poisons, 1; egg yolk for color, 1; smear for spirochæta, 1.

VITAL STATISTICS, SEPTEMBER, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING SEPTEMBER,
1923, WITH COMPARATIVE FIGURES FOR SEPTEMBER, 1922.

	BIRTHS AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	711	784	-73	11.07	12.31	-1.24
Nonresidents deducted.....	572	633	-61	8.91	9.94	-1.03
By AGE:						
Under one year.....	86	166	-80	1.34	2.61	-1.27
One year to four years, inclusive.....	32	53	-21	.50	.83	-.33
Sixty years and over.....	239	233	+6	3.72	3.65	+.07
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, SO CALLED:						
Apoplexy	40	39	+1	.62	.61	+.01
Arterio-sclerosis.....	14	38	-24	.22	.59	-.37
Heart disease.....	148	84	+64	2.30	1.32	+.98
Nephritis, chronic.....	44	46	-2	.68	.72	-.04
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,491	1,623	-132	23.22	25.49	-2.27
b. Registered stillbirths.....	45	49	-4	.70	.77	-.07
Stillbirths per 1,000 births and stillbirths,				29.29	30.19	-.90
c. Deaths of mothers from causes incident to childbirth.....	8	8	—	.12	.12	—
Deaths of mothers per 1,000 births and stillbirths.....				5.21	4.78	+.43
Deaths of children in first year of life..	86	166	-80	1.34	2.61	-1.27
Deaths in first year per 1,000 live births.....				57.68	102.27	-44.59
VIOLENCE:						
Accidents.....	49	41	+8	.76	.64	+.12
Homicides.....	1	3	-2	.015	.05	-0.35
Suicides.....	9	6	+3	.14	.09	+.05
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	13	11	+2	.20	.17	+.03
Broncho-pneumonia.....	25	27	-2	.39	.42	-.03
Cancer.....	84	86	-2	1.32	1.35	-.03
Cirrhosis of the liver.....	3	4	-1	.05	.06	-.01
Diabetes mellitus	6	13	-7	.09	.21	-.12
Diarrhœal diseases, children under two years of age.....	14	50	-36	.22	.78	-.56

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON,—Concluded.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:						
Anterior poliomyelitis.....	Cases... 8	17	—9	.12	.27	— .15
	Deaths.. 2	—	+2	.03	—	+ .03
Cerebro-spinal meningitis.....	Cases... 5	1	+4	.08	.016	+ .064
	Deaths.. 3	—	+3	.05	—	+ .05
Diphtheria.....	Cases... 228	253	+25	3.55	3.97	— .42
	Deaths.. 13	12	+1	.20	.19	+ .01
Influenza.....	Cases... 9	3	+6	.14	.05	+ .09
	Deaths.. —	—	—	—	—	—
Measles.....	Cases... 43	75	—32	.67	1.18	— .51
	Deaths.. 1	1	—	.015	.016	— .001
Pneumonia (lobar).....	Cases... 36	30	+6	.56	.47	+ .09
	Deaths.. 16	16	—	.25	.25	—
Scarlet fever.....	Cases... 77	47	+30	1.20	.74	+ .46
	Deaths.. —	1	—1	—	.016	— .016
Tuberculosis (pulmonary).....	Cases... 134	131	+3	2.08	2.06	+ .02
	Deaths.. 45	45	—	.70	.71	— .01
Tuberculosis (other forms).....	Cases... 18	34	—16	.28	.53	— .25
	Deaths.. 5	11	—6	.07	.17	— .10
Typhoid fever.....	Cases... 18	26	—8	.70	.41	+ .29
	Deaths.. 1	3	—2	.015	.05	— .035
Whooping cough.....	Cases... 33	209	—176	.51	3.28	—2.77
	Deaths.. —	26	—26	—	.41	— .41

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

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MONTHLY BULLETIN
HEALTH DEPARTMENT

DEC 1 1923



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
EDITOR MONTHLY BULLETIN, HEALTH DEPARTMENT, BOSTON.

VOL. 12.

BOSTON, NOVEMBER, 1923.

No. 11

THE EVOLUTION OF THE PRESENT BOSTON HEALTH DEPARTMENT; ITS EARLY DEVELOPMENT AND ASSOCIATION WITH BOSTON'S HISTORICAL CHARACTERS, AND THE ORGANIZATION, ACTIVITIES, BUDGETS AND FUNCTIONS OF THE HEALTH DEPARTMENT AS IT IS TODAY.

1620—1923.

By STEPHEN L. MALONEY, Secretary, Boston Health Department, before the City Federation of Women's Clubs, City Hall, Wednesday, October 31, 1923, at 10 a. m.

Your Honor Mayor Curley, Health Commissioner Mahoney, and Members of the Federation of Women's Clubs:

My part in today's program is to give you an idea of the history and activities of the Boston Health Department, which will include its beginning, and its present divisions, responsibilities and its budget. It is significant to note that men of influence in Boston's early history gave attention to the prevention and control of disease. Health, history and heroes are bound in one. Our predecessors here blazed a trail that has not only kept Boston in the forefront of American municipalities in matters affecting public health, but has left a path

that sanitarians of other cities in later years have safely followed. In other directions, also, the same may be said of Boston's early history, the history of Plymouth Colony, and the Massachusetts Bay Colony.

Many of the men of those early days that we remember through our school histories have their names in the archives of health in this section of the Commonwealth. I have in mind Samuel Fuller, Governor Winslow, Capt. Robert Keayne, Rev. Cotton Mather, Thomas Dawes and the first president of Boston's first Board of Health, Paul Revere. If you will permit, I will digress for a few minutes to tell you of the activities of these pioneers — these pathfinders who were interested not only in their own welfare but the well-being of their fellow man; these far-sighted men, who through wise and sane legislation, some of which still remains intact on our statute books, and which has served as a model of health legislation in the leading cities and states of the Union, and who, through their financial and physical efforts, laid a firm foundation on which the present model structure has been built, and which has weathered the ravages of time and the onslaughts of epidemics.

Boston's health program and the beginning of its early progressive health legislation began with the founders of the Colony, and we may picture the figure of Dr. Samuel Fuller, who came here on the Mayflower in 1620, ministering to the colonies, and his wife, Bridget Lee, who came here three years later and acted as nurse in his professional work. Doctor Fuller and his wife did not confine their work to Plymouth Colony but went on healing missions throughout the Massachusetts Bay Colony, especially in times of epidemic, and not long after we find Governor Winslow ministering to the Wampanoag Chieftain, Massasoit.

As early as 1639, Massachusetts provided for the registration of births, deaths and marriages, although there are still about a dozen states in the Union that at this late date do not provide for such registration.

In colonial days there were many wells and springs in and about Boston, and of course we all know of the great spring nearby in Spring lane, to which residents came even so far as from Charlestown to secure water, but despite this supply there was always a shortage of water, and this condition was so well known that Capt. Robert Keayne of the Ancient and Honorable Artillery Company provided enough money in his will to build here the first conduit in America in 1652. In consequence of epidemic conditions in the Barbadoes and the West Indies in 1647, the first sanitary legislation in America was enacted in March of 1648 by the General Court of Massachusetts Bay Colony, which provided for maritime quarantine to prevent the introduction of plague through trading vessels from the West Indies.

With the abating of the epidemic the act was repealed the following year. In 1666 the selectmen made rules and regulations concerning the work of scavengers and they were active in 1678 in their efforts to restrict the spread of smallpox. In 1692 the General Court provided that the selectmen of Boston and other market towns should regulate offensive trades, and in the following year, 1693, the Governor and Council quarantined at Long Island, Boston Harbor, the fleet of Sir Francis Wheeler which had arrived from Martinique, the crew of which was sorely afflicted with what was supposed to be yellow fever. Later, in 1699, the Privy Council passed another quarantine act but this was disallowed because of its unusual character and stringent regulations. Inland quarantine was usually adopted in early colonial times whenever smallpox appeared, but it was seldom effective.

In 1647 there was passed by the Legislature an act against the pollution of the harbor or the "Cove" which is now the vicinity of Haymarket square and statutes which required the isolation of the sick, and interesting local regulations, relating to the care of persons ill with smallpox and the disposition of their clothing, adopted in accordance therewith, were promulgated in Boston and Salem as early as 1678, so that the attempt to check the spread of communicable diseases by proper management is no innovation and was made in early colonial times. During the smallpox outbreak in Massachusetts Bay Colony this same year, the town officers of Boston and Salem adopted measures for isolation and disinfection not unlike those in existence at the present time. From that time to the present our town and state governments have continued to practice and to improve methods of control, not only of smallpox, but of an increasing number of other communicable diseases.

The Massachusetts Acts of 1701 provided for the impressment of houses to serve as hospitals to which patients might be removed and for furnishing nurses and attendants in addition to requiring towns to provide places for the isolation of smallpox. In a few other states also, towns are required by statute to provide for the establishment of communicable disease hospitals. This Massachusetts law is still on the statute books, but it has been invoked only in serious epidemic emergencies, probably intended to be enforced only in a serious outbreak. In town meeting September 22, 1701, an order was passed regulating the laying or repairing of drains, and in 1709 the Massachusetts Legislature passed an act regulating drains and sewers.

In 1721 we saw the efforts of Dr. Zabdiel Boylston and the Rev. Cotton Mather to provide inoculation against smallpox treated with derision by many of our citizens. The experiences, services

and writings of Doctor Boylston were recognized later, however, when the Royal Society of London made him a fellow. The Rev. Cotton Mather who had been abroad had also called the attention of the physicians in Boston to the favorable accounts from India and England of inoculation with smallpox vaccine for the purpose of securing immunity.

In 1742 an act was passed relating to the spreading of smallpox and other infectious diseases. Further progress along lines of prevention is indicated in 1782 when Harvard University established three medical professorships. An act against selling unwholesome provisions was passed in 1785.

In 1795 the Boston Aqueduct Company was incorporated for the purpose of bringing water into the city from Jamaica Pond, but in 1816 this supply had become inadequate, and an act utilizing other supplies was not passed until 1846.

The Public Health Acts of Massachusetts (known as the "Great Public Health Act") in 1797 gave the local boards of health authority to abate nuisances and to prevent the spread of contagion and related largely to quarantine matters, and this seems to be the beginning of a period that was to last for three quarters of a century, during which it was generally believed that municipal cleanliness was about all that was necessary to preserve the public health. The importance of contagion was forgotten, and the entire attention of sanitarians was devoted to improving the environment, and even that was given only very slight attention. This Act of 1797 specifically provided for the manner in which local government should order the abatement of nuisances and secure compliance with its orders, and this law has remained practically unchanged on the statute books until the present writing — over one hundred and twenty-five years — and it has served as a model, being copied almost verbatim by fourteen other states. This is of such interest and worth that I shall quote it:

The Board or the health officer shall order the owner or occupant at his own expense to remove any nuisance, source of filth, or cause of sickness, found on private property, within 24 hours, or such other time as it deems reasonable, after notice served as provided in the following section; and if the owner or occupant neglects so to do, he shall forfeit a sum not exceeding twenty dollars for every day during which he knowingly permits such nuisance or cause of sickness to remain after the time prescribed for the removal thereof.

This statute of 1797 had such broad provisions as to give local sanitary authority all the power necessary for the exercise of its proper functions, and has been maintained against all attacks upon it as a competent source of authority.

During the seventeenth and eighteenth centuries there was

probably no permanent private organization designed to promote the public health and officials gave but a small part of their time to the work, and in emergencies, temporary committees or officers were appointed. It is said that a board of health was established in Petersburg, Virginia, in 1780, one in Philadelphia in 1794, and one in New York in 1796.

The first comprehensive state enactment for the establishment of a local department of health was that of June 22, 1797, in Massachusetts, and under its provisions Boston established a board of health, with Paul Revere as President.

The order of election of the first Board of Health is of interest:

On Saturday the Ninth day of March, 1799. . . . Agreeable to Notification from the Honble Thomas Dawes & Wm. Smith Esqrs a Committee from the Honble General Court of this Commonwealth, the Representatives of the several Wards in the Town of Boston, elected agreeable to an Act of the Legislature of this Commonwealth for the Establishment of a Board of Health, met at Faneuil Hall at Eleven o'clock. A.M.

Thomas Dawes & William Smith Esqrs being present, the last mentioned Gentleman proceeded to read the Returns from the several Wards, and declared the Members who were severally present duly elected.

The Board then proceeded by Ballot to the Choice of a Secretary for the Ensuing Year; and Mr. John W. Folsom had a Majority of Votes, was duly elected, and he accepted the Choice.

The Committee having Retired the Board then proceeded to the Choice of a President for the Ensuing Year and directed the Secretary to collect and sort the Ballots, when it appeared Paul Revere Esq. had a Majority of Votes, was duly elected, and he accepted the Choice.

On a Motion That a Committee be Appointed to Prepare and Report, as soon as may be, Rules and Regulations for the government of the Board, passed in the Affirmative, and the following Members were Nominated and Appointed, viz.

MR. JOSEPH HEAD
JAMES PRINCE &
PAUL REVERE, Esq.

On a Motion That a Committee be appointed to Apply for the Use of the Senate Chamber at the Old State House, being an Eligible and convenient situation for the future Meetings of the Board, passed in the Affirmative, & John Winslow Esq. was Nominated and Appointed.

Adjourned to Wednesday next 4 o'clock P.M.

On March 16, 1799, Dr. Benjamin Waterhouse published in the "Columbian Centinel" the first story in America of Venner's vaccination discovery, which was entitled "Something Curious in the Medical Line," and on July 8, 1800, the first vaccination was performed in Boston. Dr. James Jackson, returning from Europe in September, 1800, gave added favorable opinion. The movement soon became widespread, and two years later the Boston Board of Health officially recommended it.

I should like to comment further in a general way regarding state and local health department inception and progress under legislative authority, before I give you the legal history of Boston's present health department. In that way I think I can best inform you of the present activities of the Boston Health Department as it exists now. A state health department which should investigate

diseases, guide and direct local health activities and remedy defects of local government in matters of health control is quite modern, and it was first urged in 1849 by a commission of which Lemuel Shattuck was the guiding spirit, and who wrote also that remarkable document of 1850, called the "Report of the Massachusetts Sanitary Commission." In 1853 the Massachusetts Medical Society petitioned for the appointment of a General Board of Health, and in 1861 a committee of the Boston Sanitary Association presented a memorial to the Legislature for the establishment of a State Health Department and Vital Statistics, but not until 1869 was the State Board of Health established by act of the Legislature, the first permanent Board of its kind in the United States. Later in 1877, Massachusetts was the first state to enact a law providing for the inspection of plumbing, and in 1881 the city of Lawrence was the first municipality to adopt a complete plumbing code. In 1878, Prof. W. R. Nichols went to Europe to study water purification for the Massachusetts State Board of Health and his report was printed in the Annual Report of that year and in 1883 he published his notable book on water supply. Again in 1894, Massachusetts was in the front rank, with the establishment of the first tuberculosis sanatorium in Rutland, Mass. Linda Richards, a graduate of the New England Hospital fifty years ago, was the first graduate nurse in America.

We now come back to the Boston Health Department itself and follow the functions and powers of the authorities designated with health supervision and control from early Boston history to date. The by-laws and orders of the town of Boston in the province of the Massachusetts Bay, revised in the year 1750, contained in chapter III. the following:

"To prevent nuisances in the Common, and to regulate the same, it is voted and ordered: That no Person shall lay any dead Carcass, Carrion, Ordure, Filth or Rubbish of any kind on any part of the Common, or elsewhere in This Town, not being on such Person's own land, except in such places only as he shall be by the Select-Men for the time being allowed for that purpose, on the Penalty of not less than Ten Shillings, nor more than Twenty Shillings, at the Discretion of the Justice before whom such conviction shall be."

In 1797, chapter 16, of the Acts of that year, approved June 22, 1797, besides referring to the powers of the Selectmen to remove and accommodate persons sick with contagious diseases, and making it necessary for persons arriving from places infected to inform the Selectmen, ordered that: "each town or district in this Commonwealth, may at their meeting held in March or April annually . . . when they shall judge it to be necessary, choose and appoint a Health Committee to consist of not less than five nor more than nine suitable

persons, or one person to be a health officer, whose duty it shall be to remove all filth of any kind whatever, which shall be found in any of the streets, lanes, wharves, docks, or in any other place within the limits of their town, whenever such filth shall in their judgment endanger the lives or the health of the inhabitants thereof; all the expenses whereof to be paid by the person who placed it there, if known, or if not, by the town." This act also authorized the committee or health officer to serve a notice upon the owner or occupier of any private property on which was found any filth as described above, and upon failure so to remove such filth from such property, after the expiration of the 24-hour period of the notice served, the offender was subject to a fine of \$100, together with any costs to the town in removing the filth. Thus we see that the power to prevent nuisances and to regulate the same was first in the Selectmen, and then in the committee or officer appointed by the town or district. Its attention was directed chiefly against insanitary conditions.

Next we have the Acts of 1799, chapter 10, "To empower the Town of Boston to choose a Board of Health and for removing and preventing nuisances." This law authorized the Board to examine into all nuisances and such sources of filth as may be injurious to the health of the inhabitants of Boston. It enumerated the sources from which filth might proceed, such as, drains, slaughter houses, tanyards, fish houses, hogsties, docks, stables, animal and vegetable decompositions, vessels, etc., and then broadened the powers almost without limit, by the phrase "or any other cause of any nature or kind whatsoever, which in their opinion may be injurious to the health of the inhabitants." Here, too, first appeared the power which the board of health then had, and which it still has today, of making rules and regulations, which had the force of law within the limits of the town.

An interesting feature of this law of 1799 was that the board of health appointed by virtue of it was constituted the Health Committee for the town of Boston and was invested with all the powers and duties formerly given to the Health Committee which was authorized by the Acts of 1797, cited above.

Next came the first real organization, by statute, of the board of health of Boston, by the Acts of 1816, chapter 44. This law empowered the inhabitants of the town of Boston to choose "one able and discreet person, being a freeholder and resident within the ward for which he shall be chosen," to be a member of a Board of Health. This board consisted of one person from each ward, chosen by a majority of the voters present, and the number of members thus elected was twelve. This law provided for the selection of a president and a secretary from among the members thereof, called together by the "president for the time being," the administration of oath of

office to the secretary for the faithful performance of his duties, the keeping of all records, books and papers of said Board, by the secretary; and made certified copies of votes, orders, etc., of the Board, or copies certified from the records by the secretary admissible as evidence in court procedures. This law further empowered the Board and described as its duty to examine into all causes of sickness, nuisances and sources of filth injurious to the health of the inhabitants of the town of Boston; and with reference to contagious and malignant disorders within the limits of the town, if examination by the physician of the Board determined that the public safety required it, gave the Board power to remove such a person to the Hospital on Rainsford Island or any other place within the town, or to confine such person where he then was. A penalty of not less than \$5 nor more than \$500 was provided for refusal to obey such order of the Board.

Again, in this law of 1816, appeared the legislative power of the Board with reference to the making of rules and regulations relative to preventing, removing, or destroying all nuisances, sources of filth and causes of sickness within the town. It further provided for seizure and removal to a safe place without the city of unwholesome or putrid or tainted meats, fish, vegetables, bread or other articles of provisions which in the opinion of the Board and the consulting physician of the Board were unfit for food; for the making of rules, etc., relating to clothing capable of conveying disease; to regulate quarantine of vessels; to appoint a principal physician to the Board, resident in the town, to reside on Hospital Island during quarantine.

That brings us to the first charter of Boston as a city. This was done by the Acts of 1821, chapter 110, section 17 of which stated that all the power and authority by law vested in the Board of Health for the town of Boston relative to the quarantine of vessels and relative to every other subject whatsoever, shall be, and the same is hereby transferred to and vested in the City Council created by the act. It further provided that these powers were to be carried into execution by the appointment of Health Commissioners, or in such other manner as the health, cleanliness, comfort and order of the city may require, subject to alterations by the Legislature. Three such commissioners were appointed hereunder. The town board of health had been abolished and from 1822 to 1873 Committees of the City Council supervised health matters.

At about this period the department consisted of two branches, one concerned with the enforcement of quarantine regulations, and the other having control of sanitary conditions within the city. Mayor Josiah Quincy seemed to have been the first Mayor to clash with the Board of Health in these early days, as to the line of demarcation in authority over cleaning of the streets. These differences

between Mayor Quincy and the three-headed Board of Health, led in 1824 to its displacement by a single commissioner, and under his administration, the collection of house offal formerly done by contractors was taken over by the Board of Health. It is notable in this connection that the cleanliness obtained and the abatement of nuisances under Mayor Quincy was claimed by him to have had the effect of perceptibly lowering the death rate, which is stated to have been 20 per 1,000 inhabitants in 1825, as against 23 per 1,000 for the preceding ten years.

Next came the revised charter of the City of Boston, under the Acts of 1854, chapter 448, creating a Mayor, a Board of Aldermen of 13 members, and a Common Council of 75 persons both of which latter bodies were denominated the City Council. Section 40 of this chapter vested all the power and authority now in the City Council or in the Board of Mayor and Aldermen, relative to the public health and the quarantine of vessels still in the City Council, to be carried into execution by the appointment of one or more health commissioners.

It was about this time that the inspector of milk was authorized to be appointed by the Mayor and Aldermen of the several cities of the Commonwealth, under the provision of chapter 206, Acts of 1859.

Later, in 1863, the City Ordinances of May 21 of that year, declared that "the Board of Aldermen shall constitute the Board of Health of the city, for all purposes and shall exercise all powers vested in and shall perform all the duties prescribed to, the City Council as a Board of Health, subject only to ordinances, regulations, and orders of the City Council," which was further empowered to annually elect by concurrent vote of the two branches of government a superintendent of health, who might appoint an assistant, subject to approval by the Board of Aldermen. Then there was a city physician elected annually by concurrent vote of the two branches, and further, an annual election in the same manner of five consulting physicians, to give to the Mayor, the Board of Aldermen or the Common Council, all such professional advice necessary in connection with contagious or other dangerous diseases in the city, or other matters relating to the preservation of health.

Still further, on December 2, 1872, the Mayor was vested with the power to appoint a Board of three commissioners to exercise the functions of the Board of Health. This was about one month after the Boston fire and at a time when there had been reported several hundred cases of smallpox, and in the first report published at this time there is no mention of insanitary conditions and the rules and regulations adopted deal entirely with smallpox and other infectious diseases. This last legislation by the city government relative to

health supervision was the direct result of the conflicting delegation of the powers relative to health, and was an attempt to secure more concentrated control of such matters.

We then find in 1885, under chapter 266 of the Acts of that year, a still further revision of the City Charter, and under the Act of 1885, chapter 382, every member of the Board of Health and every health inspector was required to subscribe to and take an oath before the city clerk for the proper and faithful performance of his duties. Then the Board of Health was authorized in 1895, chapter 449, to appoint as employees of the department one or more health inspectors, to perform duties and have powers conferred by law on inspectors of milk, inspectors of vinegar, of animals, and of provisions and of animals intended for slaughter.

Then came the revised charter of 1909, Acts of 486 of that year, which expressly prohibited the abolition of the Board of Health, which as it then existed consisted of three commissioners. Under the provisions of this Act, the Board of Health still functioning as it then existed, the City Ordinances of 1914, chapter 17, declared that the Health Department shall be under the charge of a board of three commissioners (which was later changed to read "a health commissioner" by the ordinances of the same year, second series), to exercise the powers and perform the duties relative to public health conferred by special or general acts on City Council of Boston or Boards of Health, and included power to appoint a city physician, medical inspector, etc.

That brings the Health Department to the present time so far as organization is concerned, carrying with it practically all the powers and duties that were formerly authorized to be performed by the various other councils, Boards, commissioners, officers and the like that were from time to time invested with health control powers.

Now, I know this has been a long drawn out process of research for the history of the present department, but I still hope to hold your interest by being more specific in my statements with reference to budgets, activities, personnel, etc. The activities of the department originally embraced a much wider scope than at present. The collection of ashes and garbage (which has very little to do with the public health), for instance, placed on the commissioners a burden, attended with much political pressure for jobs. This division was early delegated to the Department of Public Works, where it properly belongs. Although it has been under the control of that department for the past thirty years or more, the Health Department is in receipt daily of communications asking that collectors be sent to remove ashes, rubbish or garbage. As a result of this situa-

tion the commissioner's office has had added to the acknowledgment form that is sent out on receipt of all complaints, requests for information, etc., requiring answer, a note in bold type informing that collections of ashes, rubbish or garbage is a function exclusively within the control of the Public Works Department; despite this reminder, complaints still come to the Health Department over irregularity of collections, and must be referred to the Public Works Department. This is probably only a small item, but the amount of time alone, in a year, might better be devoted to some other purpose, if the public were really able to grasp the distinction between the collection of municipal wastes and nuisances affecting health.

The Quarantine Station in Boston Harbor was established long before the United States Public Health Service was organized and the experience of the Boston officials was of great service to the national government when it established its first station. This station on Gallop's Island, as you all probably know, is now under the exclusive control of the Federal Government, the station having been sold to the government in 1915 for \$100,000. The principal reason for the transfer of quarantine activities to prevent the introduction of communicable diseases from foreign countries to the Federal Government was eminently proper, as it is a national government function requiring standard methods rather than a local function. The efforts of the health officials of Boston in this respect won the commendation of federal officials.

Boston was the first city, through its health department, to establish in this country or abroad, a system of daily medical inspection of children in all public schools. This inspection in both the public and parochial schools, while started in 1890, was not officially begun until the fall of 1894, and was so fostered and developed that it reached a high state of efficiency in the prevention and control of diseases among children. This important work has since been transferred to the School Committee, and is now under the direction of Dr. William H. Devine, Director of School Medical Inspection. The Boston Health Department prepares daily a list of all communicable diseases reported for the calendar day and sends a copy of it to all schools, hospitals and institutions in the city. It is in this way that the School and Health Departments co-operate in the matter of proper control of such diseases. The list is checked in each school, and the school medical inspector then determines if the brother or sister of a child ill with a communicable disease should remain excluded until danger of contracting the disease to others has passed. A special list of such diseases is prepared for a period of weeks prior to the opening of schools each year and this is sent out promptly on the opening day so that if the period of

quarantine or isolation has not expired on that day, the wheels of school medical inspection may commence to operate at once.

Aside from these functions formerly belonging to the Health Department, there are in Boston certain other phases of health work, which in other cities throughout the country are under the direct supervision and control of the Health Department, but which are in Boston under the control of separate departments. I refer now to the registration of births, deaths and marriages in the Registry Department; to the hospitalization of diseases of all kinds, particularly communicable diseases, in the Boston City Hospital; and to the hospitalization of cases of tuberculosis requiring such treatment and care under the Boston Sanatorium. It is significant to note in connection with these latter diseases that the control of State Sanatoria for Tuberculosis is not under the Hospital Department, which would correspond to the State Department of Public Welfare, but of the State Department of Public Health. Perhaps, however, the present arrangement of such functions in Boston's municipal government has its proper significance, and there certainly is no friction between the Registry, Hospital and Boston Sanatorium Departments, and the Boston Health Department; quite the contrary.

The present organization of the Boston Health Department, established by City Ordinance, is as follows: Medical Division; Child Hygiene Division; Sanitary Division; Food Inspection Division; Laboratory Division; Quarantine Division; and Division of Vital Statistics, Records and Accounts. These divisions you will note are the divisions established by City Ordinance by prescription. The Quarantine Division is no longer a function of the Health Department, as previously indicated. For purposes of administrative efficiency, however, there are certain other divisional activities within the department; and I say "within the department" advisedly, because the prescriptive arrangement of the divisional activities of the department under the ordinances must be maintained. These other divisions, then, are:

First.—Under the Food Inspection Division we have the Abattoir Inspection Service at the abattoir located at Brighton, where all slaughtering of animals in Boston is supervised by a veterinarian in charge and three assistants, two of the latter being veterinarians also; then there is the Bureau of Milk Inspection, the Dairy Inspection Service; Pedler Inspection Service, and the Market, Store and Restaurant Service, all within the Food Inspection Division.

Second.—Under the Medical Division we have the Bureau of Communicable Diseases in charge of the epidemiologist of the department; the Health Unit; and the Detention Hospital.

Third.—Under the Sanitary Division there is the Convenience Station Service and the general Sanitary Inspection Service, which includes housing inspection.

Fourth.—Directly under the Health Commissioner there is the Bureau of Administration, under the management of the secretary.

Fifth.—The garage, nominally under the Division of Vital Statistics, Records and Accounts.

That gives us our floor plan, so to speak. Incidentally, speaking of floors, it is perhaps well to suggest the location of these various offices with reference to the administration office of the commissioner. The commissioner's office is located on the eleventh floor of the City Hall Annex. On the same floor are the secretary's office and the commissioner's public conference or hearing room; the Medical Division; the Division of Vital Statistics, Records and Accounts; the Bureau of Milk Inspection; the Child Hygiene Division and the Laboratory Division. On the tenth floor of the City Hall Annex are the Food Inspection Division, the Dairy Inspection Service and the Sanitary Division. You may well wonder why it is that the several features of food inspection are not centralized on one floor. This is easily understood when it is remembered that as part of the work done in the Bureau of Milk Inspection it is necessary to have a chemical laboratory. As the bacteriological laboratory of the department is also on the eleventh floor, it is significant that outlets of exhaust pipes, fans, blowers, etc., to the outer air, are more easily led through to the roof, from the top floor of the building than from a lower floor. The Health Unit is at No. 17 Blossom street, the Detention Hospital is located at No. 112 Southampton street, and the garage, containing headquarters for the Superintendent of Peddlers, is at No. 20 North Grove street.

The total appropriation for 1923 was \$535,836.01, based upon the total estimate asked for by the Health Commissioner. The Health Commissioner's office, including the Bureau of Administration, secretary and his assistants, has a total salary expense of \$10,353.15, exclusive of the salary of the commissioner, which is fixed by law at \$7,500. Total other expenses for this office, for supplies, advertising, and the like approximated \$8,000. You will notice that I estimate expenses, as the fiscal year will not have expired until January 31, 1924. These approximations are fairly significant, being based on actual expenditures in previous years. The personnel of this office is as follows: One secretary and six office assistants. The secretary is, as stated before, the office manager. In this office the library of the department is kept intact; cataloguing to a sufficient degree to locate desired information is carried on; magazines subscribed to are recorded and referred to the proper divisions for

reference purposes; the publicity and health educational activities emanate from here; all matters affecting the personnel of the entire department are registered in this office, a personal record of each employee being kept; the monthly bulletin of the department is prepared, edited and mailed from this office; annual reports of the divisions are correlated, edited and mailed; special circular letters of general health scope are prepared and published under the direction of the commissioner; regulations which the commissioner promulgates are recorded, advertised and disseminated; all licenses are issued, with the exception of milk licenses; but an account of moneys collected for these latter licenses is required to be forwarded daily to the secretary, who is bonded for the collection and deposit of all fees prescribed for such licenses; contracts entered into on behalf of the city by the department are recorded, and generally, all matters over which it is necessary for the Health Commissioner to exercise personal supervision are handled through the Bureau of Administration. As a matter of convenience in desk location, the settlement investigator, who is nominally under the direction of the Division of Vital Statistics, Records and Accounts, has desk room in the office of the secretary. There is kept in this office also the official record of minutes of the department's transactions, from day to day, signed by the secretary, and approved daily by the commissioner. This is the official record book and it is frequently necessary to present it in court, in connection with matters that come before the courts for adjudication, on cases arising out of violations of health laws and regulations.

Next we have the Medical Division. It is in charge of a deputy commissioner, who has for assistants the epidemiologist, in charge of the bureau of communicable diseases, a chief medical inspector, twelve medical inspectors; one director of health unit; one hospital superintendent; one supervising nurse; twenty nurses; one hospital helper; one fireman; one custodian and six clerks. In this division, up to June 22, 1923, the functions of the child hygiene division were formerly operative. For that reason I shall have to give you figures on salaries, and other expenses on child hygiene activities since the reinauguration of that latter division on June 22, 1923 only. The total expenses of the medical division proper, exclusive of child hygiene activities, estimated for the year is \$177,602.69. What is done here? All communicable diseases are reported, tabulated, indexed and filed; all such cases are visited, quarantined, and subsequently visited for purposes of supervision over isolation methods; special attention is paid to the more uncommon diseases, such as smallpox, leprosy, typhus fever. In cases of chicken pox, which may possibly be unrecognized cases of smallpox, a confirmed diagnosis

is made by the medical inspector to ascertain definitely whether or not a reported case of chicken pox is properly diagnosed. This is merely a precautionary measure, as in all other instances where a definite diagnosis is reported by a physician that diagnosis is taken as accurate. In these uncommon diseases mentioned, the detention hospital is utilized. It is located on Southamptton street, has recently been renovated, additional quarantine facilities provided, and up to date laundry and sterilizing equipment installed, so that it is possible now to accommodate sufficiently those persons who may be discovered to have these uncommon communicable diseases and be confined for observation or for care and treatment. In instances where persons are thus confined the personnel of the hospital is supplemented by the addition of doctors and nurses so that proper treatment and care may be given.

Another feature of medical division activity is the supervision of all cases of venereal diseases reported to the local board as having lapsed treatment. These cases are then referred here and a male investigator checks up the male persons ill with such diseases and a female nurse checks up females ill with these diseases. Reports are then submitted to the state, and statistics and records thereon kept here. The cases of tuberculosis occurring among Boston residents, and treated at home or in sanatoria, are kept on record in the department, and a bi-yearly survey made to bring records up to date; but this survey is performed by nurses attached to the Boston Sanatorium Department, and results reported to the Medical Division, Health Department.

The Health Unit is an adjunct of this division, too, under the control of a director. Here are housed all the various private health agencies, whose activities in matters of health of children, mothers, nutrition and the like are co-ordinated by the director in charge. There is in this unit a dental clinic operated for the city by experts from the Forsyth Dental Infirmary, and defective conditions in teeth of children corrected. This is a new function, and seems decidedly well advised as a departure from recognized health functions, which are considered to be preventive rather than to undertake treatment of defects.

Next we have the Child Hygiene Division, with a deputy commissioner in charge, under whom serve one supervising nurse, eleven nurses, one clerk, and one special investigator. All matters relative to infant welfare are conducted in this division, day nurseries are examined and passed upon prior to issuance of licenses, and special research work done to reduce deaths from infant and maternal causes. Special attention is also paid to the manner of feeding and care of infants, laying particular stress on the value of breast feeding

of infants by mothers. The total expenses of this division since it was inaugurated have been \$13,191.18, but this figure is based on seven months, so that a yearly estimate would approximate twice this figure.

The Division of Vital Statistics, Records and Accounts, is in charge of a deputy commissioner, under whose direction are employed five clerks and stenographers and one settlement investigator. The total estimated expenses for this division, including salaries and other expenses, are \$31,500. In this division all purchases made on behalf of the department are registered and referred to the Supply Department for actual purchase, or to the Printing Department on stationery, printing and binding needs. These expenditures for this particular office, and all expenses, whether for personal or other services for the entire department, are recorded in this office, and correlated to the various items in the segregated budget of the department to conform with appropriations allowed. Periodical statements are sent to the City Auditor and Budget Commissioner, the annual budget is correlated here, and allotment thereunder made to the various divisions of the department so that a proper check on expenditures may be kept in a systematic manner. All vital statistics are prepared in this office also, the work on which is greatly aided by the use of a statistical computing machine, known as the Powers Sorting and Counting Device, which permits the insertion of standard cards graduated to represent all necessary items of vital statistics on mortality and morbidity factors into this machine, and by the regulation of the necessary index, sorts and counts the cards inserted into whatever classification is desired at each particular time. About \$50,000 annually is expended in this division — which amount is not included in the total expenses given above — for the care and treatment of persons ill with communicable diseases in hospitals outside of Boston in those instances where the legal settlement of the person ill has been determined to be in Boston, and thus places Boston in a position responsible for care and treatment. A special investigator is assigned to this work and records all the features of it necessary for final determination.

The Laboratory Division comes next in the order of things. A deputy commissioner, who is a physician, is in charge; he is assisted by a bacteriologist who has the additional title of assistant director of laboratory, and who is also a physician; then there are four bacteriologists who are not physicians; two technical assistants; three media men; two clerks-stenographers; two rat catchers, and one laboratory helper. The total expenses of this division are estimated to be \$36,000. Bacteriological and serological examinations of specimens submitted to determine the presence or absence of

organisms of diphtheria, gonorrhoeal ophthalmia, malaria, rabies, syphilis, tuberculosis, typhoid fever, gonorrhoeal urethritis, and the like, are made; and besides there is done here bacteriological examination of foodstuffs to determine if there are any putrefactive bacteria present which are dangerous to health and safety. Water is also analyzed for *b. coli*, and miscellaneous other examinations are also made. The rat catchers employed bring to the laboratory for examination all rats trapped so that examination may be conducted for the presence of the bubonic plague germ. This feature of laboratory work has been discontinued at present, but from early in 1921 until the latter part of 1922 an extensive rat campaign was conducted, particularly along the waterfront, to prevent the introduction in that manner of bubonic plague rodents. Fortunately no such rat was discovered in the thousands of rats trapped and examined.

Research work is also conducted in this laboratory to determine best methods, and educational advantages are offered to hospitals, schools and institutions to learn the methods employed in bacteriological examination.

Next we have the Food Inspection Division. This division is in charge of a deputy commissioner, and under his immediate supervision there is a chief food inspector, eleven food inspectors, one inspector of peddlers and one clerk. There is in this division a dairy service in charge of a veterinarian, who has seven inspectors of dairy farms and one clerk under his charge. The milk inspector has three collectors of samples, a chemist and two clerks under his supervision. The abattoir inspection service at the abattoir in Brighton is in charge of a veterinarian, who has two veterinary inspectors and one lay inspector under his charge. The total expenses of the entire Food Inspection Division, including these various services and activities, is approximated at \$86,500. Generally, in all of these services, the work done includes control and supervision, locally, over the sale, production and manufacture of food, drug and milk supplies; enforcement of the provisions of the so-called "Food and Drug" law to prevent adulteration and misbranding; wholesale and retail store, market and bakery inspection; regular inspection of food manufacturing establishments requiring licenses; ante and post mortem inspection of cattle, sheep and swine; collection and examination of milk samples and court procedures relative to milk and its products, oleomargarine, vinegar, butter, cheese, etc., and issuance of milk and oleomargarine licenses; control and inspection of vehicles used by itinerant local peddlers of fish, fruit and vegetables; inspection of dairy farms and city milk plants and receiving stations, bacteriological examinations of milk at receiving stations in the country; control of communicable diseases

in animals. A route system in operation relative to stores, markets, etc., permits a fairly regular check to be kept on sanitary conditions and cleanliness of these establishments; and where violations are found, if not corrected seasonably, court procedures are inaugurated.

The dairy inspection service has been partially motorized, and the use of an automobile for transportation has resulted in a distinct saving to the city, financially, as well as greatly facilitating inspection and making it possible to make a larger number of inspections over a given period or territory.

Last, but by no means least, comes the Sanitary Division. We have in this division a deputy commissioner who has under his supervision, one chief sanitary inspector, forty-four inspectors, three patrolmen, who are assigned to the Health Department for the purpose of aiding in sanitary inspection procedures, four constables to serve legal notices on delinquent property owners; one chief caretaker in charge of all the convenience stations in the city under the control of the Health Department who is responsible for the work done by fifteen caretakers and ten matrons employed in these stations; and five clerks.

A special feature of sanitary inspection is noted in the employment of two gas inspector-investigators, whose special duty is to investigate and report defective gas fixtures and appliances used in dwellings and the like, and to particularly investigate all fixtures in apartments or rooms where fatal or near-fatal accidents have resulted from illuminating gas poisoning, to determine whether or not they have been the result of defective fixtures or appliances. This campaign to prevent the use of unsatisfactory appliances is very hard to regulate, inasmuch as there is nothing uniform in the way of regulation or statute in the Commonwealth to enable the inspectors to have a proper guide to follow in making inspections.

Work in the Sanitary Division consists generally of examination into all nuisances and sources of filth and other insanitary conditions, and to order them abated. A feature of this order of abatement is that the department may order a nuisance abated, but may not direct the manner of its abatement. Dirty yards, insanitary conditions in houses and other buildings, passageways, unclean alleyways, barber shops, offensive trade industries, hen-yard locations, stables, dumps, basement and cellar rooms and water-closets; gas fixtures and appliances, wet and spongy lands, manicuring, massage and vapor bath establishments, lying-in hospitals, plumbing and sewerage facilities and the like, receive attention generally by the inspectors with a view to proper sanitary requirements. Lodging houses and tenement houses are made the subject of regular inspection with a view to determining the sanitary condition. All inspectors are assigned to a specific district, are made responsible for it, and required to

report daily all work done on their own initiative as well as on work assigned for report. A campaign is conducted annually to eradicate the mosquito pest, by spraying stagnant pool locations with oil to prevent the breeding of the pest. The convenience stations, which are under the direct supervision of a chief caretaker attached to this division, are located in the most advantageous sections of the city, and the two larger ones are operated on a 24-hour basis, both for men and women. There are eight stations in all, and all expenses of upkeep, repair, personnel, supplies, etc., are provided for in the Health Department budget.

As stated before, the total budget appropriation for the Health Department for the fiscal year 1923-24 was \$535,836.01. It is perhaps worthy of comment to show that this amount is greater by \$205,986.35 since 1916. The population of Boston in 1916 was 746,083, and in 1923 is 770,400, an increase during this period of 24,317. The per capita cost of health preservation based on actual budget allowance in 1916 was \$0.4421, as compared with \$0.6955 in 1923. This comparison of per capita health cost is perhaps not so significant from the standpoint of accuracy as the same statement based on actual expenditures for these years. It is not possible at this season of the year 1923 to arrive at the total expenditures which will have accrued at the end of the fiscal year. I shall, however, give you the per capita cost of health in Boston for 1916 and 1922, based on actual expenditures, rather than on total appropriations. In 1916, the department's total expenditures were \$387,761, population, 746,083. This gives us a per capita health cost of \$0.4394. In 1922, the department's total expenditures were \$463,819, population, 764,017. This gives a per capita health cost of \$0.6071, an increase of \$0.1677 per capita, over this period. It might be interesting also to know that out of every dollar spent by the municipality raised by taxation, the Health Department's apportionment is 1 cent.

At the risk of boring you with statistics I shall read a table showing the total appropriation, the total expenditures, the population and the per capita cost based on total appropriations and also on total expenditures since 1916.

YEAR.	Total Appropriation.	Total Expenditures.	Population.	PER CAPITA COST.	
				Appropriation.	Expenditures.
1916.....	\$329,849.66	\$327,761.67	746,083	\$0.4421	\$0.4394
1917.....	337,467.85	315,955.61	746,059	.4520	.4231
1918.....	353,007.59	328,029.66	747,113	.4724	.4390
1919.....	370,696.31	387,388.21	747,628	.4958	.4780
1920.....	426,506.54	490,589.44	751,251	.5677	.5452
1921.....	479,176.54	448,485.06	757,634	.6324	.5919
1922.....	490,411.40	463,819.62	764,017	.6419	.6017
1923.....	535,836.01	Not estimated.	770,400	.6955	Not estimated.

The following cities, according to the latest available figures, show that the amounts indicated were expended for health purposes, per capita, in 1920: New York, 69.0; Chicago, 38.2; Philadelphia, 39.0; Detroit, 72.3; Cleveland, 48.3; St. Louis, 34.0; Baltimore, 53.1; Los Angeles, 52.2; Boston, 54.0. An examination of the various health services under the direct control of the health departments in the above cities shows that there is under the control of the above mentioned health departments the following health services: New York, industrial hygiene, school health supervision, hospitals, births, deaths and marriage records; Chicago, industrial hygiene, school health supervision, birth reporting; Philadelphia, school health supervision, birth reporting, industrial hygiene; Detroit, school health supervision; Cleveland, birth reporting; St. Louis, birth reporting; Baltimore, school health supervision, birth reporting; and Los Angeles, birth reporting. Just how far Boston should go in assuming such additional functions relative to health is a matter that will permit of no discussion here. Furthermore, legislation in Massachusetts has definitely placed the various health services that in Boston are under departments other than the Health Department, under the supervision and direction of separate departments, and perhaps the present arrangement works out as well in Boston as different methods do in other cities. Centralization of the control of all municipal health services might have its effect in co-ordination, but it is certain that specialization of control by decentralizing these special health services, such as births, deaths and marriage reporting, hospitals, industrial hygiene and school health supervision, is possible because it permits specialists in these particular lines to devote themselves to their specialties, without a centralized administrative direction.

I think that is about all that I shall have to say. I hope that this paper has not appeared too long drawn out, and perhaps many details might have been omitted, but I feel that to do justice to the subject, as a whole, you should have the ground covered as completely as possible. For one reason, in public health we must be thorough, and I know you would feel better going away from here with the thought that the subject had been given in its entirety; and again, I disliked very much to omit matter that is useful, not only now, but later. I don't believe any paper or book has covered the situation so completely, and I am confident that for that reason you will not consider the discussion too lengthy.

I thank you for your attention, and to quote Mayor Curley: "The ancient world recognized that a sound body was a prerequisite of a sound mind; and our world recognizes this sound philosophy and understands that in the preservation of the American Republic

no factor in its life is of greater importance than the preservation of health and the prevention of disease."

For much of the information contained in this paper the writer is indebted to the official records and reports of the Boston Health Department, Massachusetts Sanitary Reports, Records of Massachusetts, Boston Record Commissioner's Report, Statutes of Massachusetts, City of Boston Ordinances, Whipple's "State Sanitation," Chapin's "Municipal Sanitation," and Koren's 1822-1922."

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during October. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.28	3.65	85
Anderson, Oscar A.....	12.40	3.88	64
Antetomaso, Peter.....	13.46	4.76	45
R. Barden Creamery Company.....	13.57	4.80	132
Barron, C. W.....	14.24	4.95	80
Barry, Michael F.....	12.50	3.70	55
Bemis, H. E.....	12.40	3.75	15
Bergmann, John H.....	12.89	4.13	15
Bolio, Mary J.....	12.00	3.90	23
Bowditch, Estate, E. F.....	12.54	3.75	38
Brandley, P. J. & T. J.....	12.54	3.90	22
Brandon Farms Milk Company.....	12.40	3.62	150
Burns, James.....	12.34	3.70	37
Casey, James D.....	12.75	4.05	14
Cashin, James F.....	12.51	3.81	25
Cedar Hill Farm, Inc.....	12.99	4.20	12
Chapin, George L.....	12.17	3.62	28
Childs Brothers.....	12.29	3.66	77
Clark, Levi.....	12.20	3.60	36
Cohen, Benjamin.....	12.49	3.80	21
Corkery, John H.....	12.26	3.65	650
Creedon & Crowell.....	12.42	3.90	72
Cummings, F. S., Company.....	12.12	3.60	14
Cunningham, Paul.....	12.53	3.70	25
Cusick, William H.....	12.40	3.80	293
Deerfoot Farms Milk Company.....	12.60	3.93	27

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Denehy, Timothy.....	12.62	3.86	30
DiMauro, Gaetano.....	12.39	3.66	40
Driscoll, William B., Company.....	13.06	4.03	8
Duggan Brothers.....	12.68	3.90	78
Edgerly, Frank S.....	12.28	3.75	466
Elm Spring Farm Milk Company.....	12.24	3.66	270
English, John.....	13.22	4.35	134
Ferguson, Malcolm D.....	12.40	3.80	174
Floyd Milk Company.....	12.56	3.98	30
Fortune & Allen.....	12.42	3.95	24
Garvin, Charles E.....	14.48	6.10	24
Giroux, J. E., & Co.....	12.36	3.80	53
Griffin, Joseph L.....	12.49	3.85	13
Griffin Brothers.....	12.83	4.15	120
Gushee, W. S. & C. W.....	12.18	3.58	18
Hagar, J. M., & Sons.....	12.58	3.85	18
Hancock, T. G., Company.....	12.50	3.85	483
Herlihy Brothers.....	12.38	4.11	205
Hickey, Martin J.....	12.26	3.50	156
Holden, John E.....	12.57	3.83	20
Hood, H. P., & Sons, Inc.....	12.46	3.80	84
Jones, William T., & Co., Inc.....	12.52	3.83	73
Kendall Brothers.....	12.17	3.65	27
Kennedy, R. J., Jr.....	12.44	3.81	21
Kingston, Samuel.....	13.17	4.20	20
Klawe & Freeman.....	13.21	4.20	34
Knapp, George J.....	12.43	3.78	66
Lang, Michael J.....	12.52	3.73	28
Larkin, Patrick.....	12.48	3.80	146
Larsson, Charles.....	12.47	3.80	21
Lesser, Joseph.....	12.62	3.65	272
Lincoln Farms, Inc.....	12.85	4.15	63
Lubin, Felix.....	11.85	3.30	258
Lyndonville Creamery Company.....	12.42	3.55	480
Magee, Nellie A.....	12.82	3.80	32
Manning, Peter E.....	12.56	3.75	242
Maple Farm Milk Company.....	12.37	3.75	171
McAdams, John F.....	12.46	3.80	42
McKernan, John.....	12.84	3.96	70

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Moore, Peter.....	12.41	3.70	164
Munchbach, George.....	12.31	3.70	33
Newton & Pope.....	12.80	3.95	16
Noble, W. F., & Sons.....	12.59	3.93	11
Raycraft, Benjamin F.....	12.46	3.95	20
Robinson, Albert J.....	12.65	3.96	31
Robinson, James A.....	12.69	3.80	19
Runkle, John C.....	13.12	4.12	10
Schuster, Adam.....	12.53	3.85	22
Seven Oaks Dairy Company.....	12.36	3.90	28
Shick, Jacob.....	12.74	4.15	180
Smith & Lynch.....	12.41	3.73	229
Somerset Farms Milk Company.....	12.75	4.15	10
Sterling Farms Milk Company.....	12.38	3.66	15
Stone, Howard L.....	12.50	3.70	18
Stuart, Wallis E.....	12.28	3.70	12
Sullivan, John D.....	12.62	3.80	12
Sullivan, John L.....	12.43	4.02	48
Turner Center System, Inc.....	12.52	3.85	40
Upland Farms Milk Company.....	14.46	4.90	10
Vartanian, Setrag.....	12.24	3.62	58
Vartanian, Gazar.....	12.26	3.62	367
Walker-Gordon Laboratory Company.....	12.56	3.95	5
Ware, George H.....	12.46	3.81	20
Weiler, E., & Sons.....	12.52	3.81	70
Werner, Ferdinand.....	12.31	3.70	37
Westwood Farms Milk Company.....	12.40	3.70	31
White Brothers.....	12.60	3.80	129
Whiting Milk Companies.....	12.37	3.80	86
Whittemore, Warner D.....	12.54	3.90	15
Wiswall, Granville A.....	12.39	3.73	24
Wittenberg & Co.....	12.48	3.80	252
Woodland, Charles.....	12.12	3.50	115

In Boston, in 1850 (population 138,788), there were 586 deaths from tuberculosis. There has been almost a steady increase up to 1886, when the peak was reached with a total of 1,607 deaths. Since that time the course has been downward until last year (population 764,017) there was a remarkably low number of deaths from tuberculosis—724.

CHRISTMAS SEALS.

The Christmas seal of 1923 has a true Christmas spirit. A little child is seated in expectancy before the fireplace, hoping that he may see Santa Claus. And sure enough, in the depths of the chimney there are the ruddy features of this special saint of the children. The colors are the red and green of Christmas and the little stamp is admirably suited to its mission, the carrying of a message of peace and good will and good health to men.

The seal sale of last year brought to the Boston Tuberculosis Association the sum of \$25,000, and with this money it was possible to maintain the Prendergast Preventorium, which has preserved the health of not less than seventy little girls, in addition to other work of the association. It is hoped this year to double the amount of seals sold and to be able to add to Prendergast Preventorium a wing for little boys. At the present time little boys who are members of families in which there is an adult case of consumption, and who are probably recruits for the future army of consumptives, have no place in which they can be properly cared for.

The Christmas seals furnish the most democratic way of doing health work, because the newsboy with his penny is able to help according to his means equally well with the banker with his check.

Every seal helps in the good work of fighting the most widely spread malady of man. How much can you help?

CHAIN STORES MILK.

NAME OF DEALER.	Supplied by.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc. . . .	12.51	3.85	156
The Cloverdale Company	Turner Center System	12.53	3.85	23
John T. Connor Company	Bellows Falls Co-operative Creamery Company.	12.52	3.90	17
Co-operative Grocery Com- pany.	J. M. Hagar & Sons	12.65	3.75	22
Economy Grocery Company	Turner Center System	12.71	3.80	139
First National Stores, Ltd.	Turner Center System	12.46	3.90	30
Morgan Brothers Company	Whiting Milk Companies	12.58	3.55	205
M. O'Keeffe, Inc.	J. M. Hagar & Sons, Inc. . . .	12.34	3.63	77
Rose Tea Company	H. P. Hood & Sons, Inc., and Whiting Milk Com- panies.	12.48	3.90	304
Hyman Winer	Hyman Winer	12.50	3.60	633

TIME ELAPSING BETWEEN DATE OF REPORTING CASES OF TUBERCULOSIS AND DATE OF DEATH DURING SEPTEMBER AND OCTOBER, 1923.

CLASSIFICATION.	Number.		Percentage.	
	Sept.	Oct.	Sept.	Oct.
After death.....	6	9	15.00	21.43
Seven days or less.....	3	2	7.50	4.76
Eight to fourteen days, inclusive.....	0	3	—	7.14
Fifteen to twenty-one days, inclusive.....	0	1	—	2.38
Twenty-two to thirty-one days, inclusive.....	1	0	2.50	—
WITHIN FIRST MONTH.....	10	15	25.00	35.71
Within second month.....	3	5	7.50	11.90
Within third month.....	2	2	5.00	4.76
Within fourth month.....	0	1	—	2.38
Within fifth month.....	7	3	17.50	7.14
Within sixth month.....	2	2	5.00	4.76
Within seventh month.....	3	1	7.50	2.38
Within eighth month.....	3	0	7.50	—
Within ninth month.....	0	0	—	—
Within tenth month.....	0	0	—	—
Within eleventh month.....	0	0	—	—
Within twelfth month.....	1	0	2.50	—
WITHIN FIRST YEAR PRECEDING DEATH.....	31	29	77.50	69.03
Within second year.....	5	2	12.50	4.76
Within third year.....	0	4	—	9.52
More than three years.....	4	7	10.00	16.67
Totals.....	40	42	100.00	99.98

HEALTH DEPARTMENT.

Evidence of the physician's unselfish devotion to duty manifested itself in the past in thousands of examples in the curative field. A splendid constructive endeavor in the present field of prevention is shown by the voluntary organization of a group of the West End practitioners of Boston who allied themselves to the Boston Health Unit in the formation of a Medical Advisory Committee to the Director, Dr. Charles F. Wilinsky, of the Boston Health Department. In organizing they have dedicated themselves and their united efforts to a program of prevention of disease, without a selfish thought of the possibilities of the reduction of their private practice which might be caused by the diminished morbidity resulting from a program of preventive medicine.

The following comprise the personnel of the Medical Advisory Committee, representing the sentiment of the West End physicians:

Dr. N. M. Levins, Chairman; Dr. George Oberlander, Vice-Chairman; Dr. S. W. Myers, Secretary; Dr. DuVally; Dr. S. Elkin; Dr. Feldman; Dr. B. Friedman; Dr. A. J. Hurwitz; Dr. H. Rothblatt; Dr. S. Saltz; Dr. J. Shubert; Dr. Charles Towle.

SUMMARY OF THE WORK, OCTOBER, 1923.

BUREAU OF ADMINISTRATION.

	Oct.	Sept.		Oct.	Sept.
Hearings authorized	2	3	Personnel:		
Prosecutions ordered	11	25	Appointments	3	7
Prosecutions withdrawn,	1	0	Probationary	1	4
Dump applications approved	1	2	Provisional	1	0
Offensive trades approved	2	3	Temporary	0	3
Legal notices	268	212	Transfers to department	1	0
Lying-In Hospitals certified	2	1	Rating changed	0	1
Demolition orders	9	0	Leaves of absence	1	0
Vacate notices	1	1	Promotions	5	0
Sewer location approved,	1	0	Resignations	1	0
Special drafts	1	0	Beverage licenses approved	0	1
			Disapproved	1	0
			Suspended	1	0
			Restored	1	0

LICENSES, PERMITS, ETC., ISSUED.

	Oct.	Sept.		Oct.	Sept.
Burial permits	974	845	Provisionally	2	0
Milk licenses	158	123	Denatured alcohol licenses	1	5
Pedlers' licenses:			Manicure-massage:		
Granted	44	86	Granted	26	42
Hen permit extended	1	0	Dumps	2	0
Hen licenses granted	67	31	Beverage licenses	1	1
Stable permit granted finally	1	1	Offensive trade license	0	1

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Oct.	Sept.		Oct.	Sept.
Visits by medical inspectors	1,383	2,246	Cases brought to Boston for treatment	93	47
Visits by veterinarian	14	0	Antitoxin administered	37	33
Visits by investigators	350	0	Schick tests	226	0
Deaths investigated	0	18	Schick readings	87	0
Vaccinations	37	506	Toxin-antitoxin injections	287	0
Vaccination certificates	18	438			

NURSING SERVICE.

	Oct.	Sept.
Communicable disease visits.	2,137	2,227

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, OCTOBER 1923.

SYPHILIS.

Current cases under investigation October 1, 1923	34
New cases assigned during the month	24
Total	<u>58</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	14
Further treatment unnecessary	1
Not located:	
Search abandoned	15
Under investigation October 31, 1923	28
Total	<u>58</u>

GONORRHEA.

Current cases under investigation October 1, 1923	97
New cases assigned during the month	46
Total	<u>143</u>

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	22
Further treatment unnecessary	8
Not located:	
Search abandoned	63
Fraudulent use of name	0
Under investigation October 31, 1923	48
Total	<u>143</u>

SUMMARY.

Current cases under investigation October 1, 1923	131
New cases assigned during the month	70
Total	<u>201</u>

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	36
Further treatment unnecessary	9

Not located:	
Search abandoned	78
Fraudulent use of name	0
Under investigation October 31, 1923	76
Total	<u>201</u>
Form letters mailed to above patients	68
Form letters unclaimed, returned from post office	13
Form letters accepted by patients	55
Venereal disease complaints	11
Under treatment	4
Under investigation	7
Visits by investigators	350

HEALTH UNIT (Blossom Street).

	Oct.	Sept.
Health Department proper:		
Vaccinations	47	280
Vaccination certificates issued	33	399
Antitoxin, anti-typhoid and toxin-antitoxin injections	34	0
Children examined for camps and day nurseries	8	6
Visits made by medical inspector	57	84
Dental clinic:		
Number of operations	1,124	684
Number of dismissals	217	129
Number of children treated	474	254
Cases visited by nurses:		
Medical	246	139
Babies	272	276
Complaints of insanitary conditions	17	16
Visitors:		
Resident	5	11
Nonresident	13	3
General:		
Persons applying for information	484	375
Community Health Association:		
(a) Baby Hygiene Association and Health Department Nurses:		
New babies admitted	30	26
Homes visited by nurses	0	359
Conferences:		
Number held	12	9
Attendance	381	241
(b) Instructive District Nursing Association:		
Visits made by nurses	3,166	1,166
Boston Dispensary:		
Calls by district physician	52	27
Boston Sanatorium:		
Calls by nurses in district	817	498
Jewish Welfare Center:		
Nutrition conferences:		
Number	1	0
Attendance	15	0

CHILD HYGIENE DIVISION.

	Oct.
Visits to new cases	1,269
Visits to old cases	1,728
Wrong address	153
Cases not seen	413
Dead	15
Feedings:	
Breast	1,675
Formula	332
Formula and Breast	373
Diet	36
Condition:	
Excellent	240
Good	2,105
Fair	55
Sick	16
Defective Conditions Found:	
Ophthalmia	43
Investigations	225
Miscellaneous:	
Examinations of mothers' milk	2

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Oct.	Sept.
New reports	3,367	3,237
Stores inspected	3,979	3,809
Sanitary defects remedied	86	55
Complaints at office	50	51
Referred to Sanitary Division	7	4
Milk applications	127	80
Peddlers:		
Applications for licenses approved	49	78
Vehicles inspected and approved	558	514
Court cases	3	8
Laboratory Examinations:		
Bacteriological	0	5
Chemical	1	2

CONDEMNATIONS.

NOT REQUESTED.

Almonds	120 pounds	Coffee	78 pounds
Beans	300 pounds	Dried fruit	12½ boxes
Beef	47 pounds	Eggs	75 dozen
Beef trimmings	22 pounds	Flour	236 pounds
Bear	2 pounds	Jello	12 packages
Butter	30 pounds	Lamb	1
Candy	400 pounds	Macaroni	75 pounds
Cereals	300 pounds	Matzos	9 pounds
Chicken	210 pounds	Mackerel	25 pounds
Cake	28 pounds	Meal	100 pounds
Cookies	75 pounds	Mushrooms	40 pounds

Peas	37 pounds	Salt	100 pounds
Pickles	100 pounds	Sugar	300 pounds
Plucks	4 pounds	Sweetbreads	5 pounds
Poultry	252 pounds	Tea	100 pounds
Saffron	5 pounds	Tomato	57 cans
Prunes	77½ pounds	Tonic	58 bottles
Smelts	275 pounds	Tonic	37½ cases

LIVE STOCK INSPECTION (Brighton Abattoir).

	Oct.	Sept.		Oct.	Sept.
Cattle inspected	358	67	Sheep inspected	3	61
Calves inspected	1,540	1,008	Parts condemned	265	210
Swine inspected	5,153	3,414	Animals condemned	12	3

DAIRY DIVISION.

	Oct.	Sept.		Oct.	Sept.
Total inspections	1,150	737	Without milk rooms	316	120
Dairies inspected	728	312	Inactive	30	4
Scoring above 50 *	451	192	Total cattle inspected	12,667	4,388
Scoring below	277	120	Inspection of milk plants		
With milk rooms	412	192	and licensed dealers	392	421

* Passable mark.

BUREAU OF MILK INSPECTION.

	Oct.	Sept.		Oct.	Sept.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,248	1,044	Milk	565	584
Vinegar	120	37	Ice cream	41	86
Ice cream	2	2	Court cases	9	21
Butter	1	0	Fines	\$155	\$785
Miscellaneous	6	6			

SANITARY INSPECTION.

	Oct.	Sept.		Oct.	Sept.
Original inspections	1,953	1,459	Complaints	742	945
New reports	2,681	2,701	Court cases	15	15
Reinspections	7,187	6,987	Vacate notices	2	0
Legal notices served	218	270	Fines	\$45	\$174

BACTERIOLOGICAL LABORATORY.

	Oct.	Sept.
Examinations for diagnosis and release:		
Diphtheria	1,660	1,315
Tuberculosis	261	300
Typhoid	55	87
Gonorrhea	758	550
Gonorrheal Ophthalmia	53	59
Syphilis	1,495	1,198
Other examinations	29*	32
Bacteriological examinations of milk	565	584
Bacteriological examinations of ice cream	41	86

* Malaria, 5; dog for rabies, 1; genito-urinary tuberculosis, 4; dark field examinations, 1; urine for typhoid, 4; stools for typhoid, 6; cultures for virulence, 6; chocolates for poisons, 1; smear for Vincent's angina, 1; water for bacteria, 1.

VITAL STATISTICS, OCTOBER, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING OCTOBER, 1923, WITH COMPARATIVE FIGURES FOR OCTOBER, 1922.

	BIRTHS AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	863	899	—36	13.44	14.12	— .68
Nonresidents deducted.....	702	733	—31	10.93	11.51	— .58
By AGE:						
Under one year.....	101	139	—38	1.57	2.18	— .61
One year to four years, inclusive.....	35	55	—20	.54	.86	— .32
Sixty years and over.....	325	311	+14	5.06	4.88	+ .18
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, So CALLED:						
Apoplexy.....	61	50	+11	.95	.78	+ .17
Arterio-sclerosis.....	32	43	—11	.50	.67	— .17
Heart disease.....	147	120	+27	2.28	1.88	+ .40
Nephritis, chronic.....	49	50	—1	.76	.78	— .02
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,612	1,587	+25	25.11	24.92	+ .19
b. Registered stillbirths.....	44	52	—8	.68	.81	— .13
Stillbirths per 1,000 births and stillbirths.....				26.57	31.72	—5.15
c. Deaths of mothers from causes incident to childbirth.....	7	11	—4	.11	.17	— .06
Deaths of mothers per 1,000 births and stillbirths.....				4.23	6.71	—2.48
Deaths of children in first year of life...	101	139	—38	1.57	2.18	— .61
Deaths in first year per 1,000 live births.....				62.65	87.59	—24.94
VIOLENCE:						
Accidents.....	59	65	—6	.92	1.02	— .10
Homicides.....	1	1	—	.015	.016	— .001
Suicides.....	12	9	+3	.18	.14	+ .04
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	8	11	—3	.12	.17	— .05
Broncho-pneumonia.....	32	36	—4	.50	.56	— .06
Cancer.....	96	85	+11	1.49	1.33	+ .16
Cirrhosis of the liver.....	4	4	—	.06	.06	—
Diabetes mellitus.....	17	25	—8	.26	.39	— .13
Diarrhoeal diseases, children under two years of age.....	9	35	—26	.14	.55	— .41

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON,—Concluded.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:						
Anterior poliomyelitis.....	Cases... 13	7	+6	.20	.11	+.09
	Deaths.. 3	1	+2	.04	.016	+.02
Cerebro-spinal meningitis.....	Cases... 5	2	+3	.08	.03	+.05
	Deaths.. 3	2	+1	.04	.03	+.01
Diphtheria.....	Cases... 335	269	+66	5.22	4.22	+1.00
	Deaths.. 17	15	+2	.26	.24	+.02
Influenza.....	Cases... 2	7	-5	.03	.11	-.08
	Deaths.. 1	—	+1	.015	—	+.015
Measles.....	Cases... 104	143	-39	1.62	2.25	-.63
	Deaths.. —	2	-2	—	.03	-.03
Pneumonia (lobar).....	Cases... 73	76	-3	1.14	1.19	-.05
	Deaths.. 29	29	—	.45	.45	—
Scarlet fever.....	Cases... 189	119	+70	2.94	1.87	+1.07
	Deaths.. 2	1	+1	.03	.016	+.014
Tuberculosis (pulmonary).....	Cases... 167	155	+12	2.60	2.43	+.17
	Deaths.. 48	59	-11	.75	.93	-.18
Tuberculosis (other forms).....	Cases... 29	22	+7	.45	.34	+.11
	Deaths.. 16	4	+12	.25	.06	+.19
Typhoid fever.....	Cases... 21	21	—	.33	.33	—
	Deaths.. 1	1	—	.015	.016	-.001
Whooping cough.....	Cases... 25	188	-163	.39	2.95	-2.56
	Deaths.. 1	13	-12	.015	.20	-.185

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (midyear), based upon the federal census of 1920, has been used.

DO NOT DESTROY.

When you have no further use for this
Bulletin give it to someone else.

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MONTHLY BULLETIN HEALTH DEPARTMENT



CITY OF BOSTON

FRANCIS X. MAHONEY, M. D., *Health Commissioner.*

Communications relating to this publication should be addressed to the
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FOOD POISONING.

There has apparently been a great increase in the number of fatal cases of food poisoning in the United States during the last fifteen years. This conclusion seems inevitable no matter how much we discount the unreliable statistics on the subject. During this period people have felt the pinch of the rising cost of living. The enactment and enforcement of pure food laws have tended to hold in check palpable frauds in the way of food adulteration and misbranding, but food conservation which received such an impetus during the war has brought about both in the home and in commercial establishments a different attitude toward anything of possible food value than in the days when foodstuffs were cheaper. Whether or not food economy may thus have been a factor in the apparent increase of cases of food poisoning, it is nevertheless certain that a great deal of that which formerly went into garbage receptacles now finds its way, in one form or another, into human stomachs.

Food poisoning may result from the accidental contamination of food with mineral poisons. Poisonous mineral salts may possibly result from the chemical action of certain food on their containers. The often feared and never proved danger from copper in this

connection has now received an added interest because of the possible relation of the habitual taking of copper salts to the production of cirrhosis of the liver. The extensive use of arsenate of lead and other poisonous solutions in spraying trees and crops may and does result in the dangerous contamination of foodstuffs. From the amounts of arsenic which the Boston Health Department has at times discovered on food being offered for sale it would seem that acute arsenical poisoning may be responsible for more digestive disturbances than has been suspected.

Symptoms of food poisoning may be due to anaphylaxis, to a protein sensitivity to certain kinds of food. Strawberries and shell fish, crabs, lobsters, clams or oysters are generally recognized as being capable of producing symptoms of food poisoning in certain individuals but one may forget that the same protein sensitiveness may extend to any article of food. Skin tests indicate that sensitiveness to salmon is very common and doubtless in many instances symptoms of poisoning from eating salmon is due to this cause and not to the condition of the salmon itself. Skin tests also indicate that the great majority of people possess a protein sensitiveness to spinach and this fact together with its capacity for producing oxalate of lime crystals in the bowels and kidneys may well make one question whether the reputation of spinach for wholesomeness may not be overdone. Various kinds of nuts, chocolate, cheese, oatmeal or some other cereal are all substances to which protein sensitiveness is common. Symptoms of protein sensitiveness may manifest themselves as an acute gastro-intestinal upset with or without urticaria or as a more or less vague digestive disturbance with eczema or other skin manifestations, or, as is now claimed, in such nervous symptoms as migraine, for example.

Anaphylaxis is to be suspected in apparent cases of food poisoning in which it is found that others who partook of the same food suffered no ill effects. It is to be remembered, however, that food contaminated with the paratyphoid bacilli may be eaten without appreciable affect on immunes. It is also to be remembered that a person can stand a certain amount of a food protein to which he may be sensitive but that typical food poisoning symptoms may result from getting an overload. It is for this reason that a person may habitually eat some common article of food to which he is sensitive without suspecting his idiosyncrasy toward it, provided he does not partake of it in sufficient amount to produce immediately troublesome symptoms. A person who is sensitive to one food protein is likely to possess a sensitivity to several. Protein sensitivity is something which may appear in a person without apparent cause and, if skin tests are to be relied upon, may likewise mysteriously disappear.

When anaphylaxis may be suspected as the cause of manifestations of food poisoning a skin test may help to confirm or discredit such a suspicion. We should not forget, however, that in protein skin reactions we may meet apparent inconsistencies which we cannot as yet satisfactorily explain and that, furthermore, a positive skin reaction to a protein does not necessarily exclude actual poisoning from some other cause.

Food poisoning may also result from poisonous qualities inherent in or acquired by the foodstuff which has been eaten. Mushroom poisoning and sickness from cows' milk, rendered poisonous by something which the animal has eaten, are examples.

In addition to possible causes of symptoms of food poisoning above mentioned, poisoning may result from the contamination of food with certain kinds of bacteria. How many different kinds of bacteria may produce poisoning and in how many different ways symptoms of poisoning may be brought about by bacteria we do not know. Various bacteria have, however, been identified as being capable of producing symptoms of poisoning and it is known that some of these bacteria may produce the symptoms of poisoning by bacterial activity after the bacteria have been introduced in the body, while others by their growth and activity in the food before it is eaten produce poisonous products or toxins which themselves cause poisoning when taken into the body with the food, irrespective of what the bacteria themselves may be capable of doing after they enter the body.

Most of the bacteria identified as capable of producing food poisoning have certain laboratory characteristics which have led them to be referred to as belonging to the colon-typhoid group of bacteria. They include the bacillus enteritidis or Gaertner's bacillus, the bacillus choleraesuis, the so-called hog cholera bacillus and the paratyphoid bacilli. When food contaminated with these organisms is taken into the stomach, they cause in susceptible persons pronounced gastrointestinal disturbances which are now regarded as often the result of an infection of the person with the bacilli themselves rather than the result of any toxin or "ptomaine" taken in with the contaminated food. In other words symptoms arising from taking these bacilli into the body may be looked on as similar to the symptoms of the infection of a susceptible individual with an acute infective disease.

There is another and very serious form of food poisoning now receiving much attention and which is due to another and very different kind of bacteria. It is known as the bacillus botulinus. It belongs to a group of anaerobic bacteria whose natural habitat like that of the tetanus bacillus is in the soil, preferably new soil rather

than old cultivated soil. Like the tetanus bacillus it becomes harmful to man or animals only accidentally and under certain peculiar conditions.

Two different types or strains of the botulinus bacillus have thus far been identified. They appear to differ somewhat also in their dangerous possibilities. As in the case of the tetanus bacillus the dangerous possibilities of the bacillus botulinus manifest themselves chiefly through the effects of a toxin on the nervous system. It owes its name, the sausage bacillus, to the fact that it was first identified in connection with poisoning from eating sausages, the source of the bacilli evidently being the imperfectly cleaned intestines of the herbivorous animals whose intestines were used for the "skin" of the sausages. The bacillus botulinus is a spore bearing bacillus and its spores are extremely resistant to heat. It is wide-spread in its distribution in this country and it is likely to contaminate any foodstuffs which grow in or which may come in contact with the ground. Attention was attracted to it in this country some years ago by reason of deaths which it caused from eating canned ripe olives and canned spinach. Since then it has been found to be a cause of death from eating contaminated home canned foodstuffs. Moreover the practical aspects of the botulinus problem are not confined to human beings. Wholesale deaths of live stock have resulted from eating alfalfa grown and baled in certain localities.

The bacillus botulinus was formerly thought to be itself harmless when taken into the stomach apart from its toxin but there has lately appeared a disposition to question this belief. The toxin, which is certainly the thing to be most feared, requires anaerobic conditions and certain other physical or chemical conditions for its development in foodstuff. In the matter of just what these latter conditions must be we find again a disposition to be less positive than formerly. In most cases of poisoning there is testimony to the effect that the food smelled or tasted wrong or "queer" but we also have testimony that nothing peculiar about the poisonous food was noticeable. Investigation of cases of botulinus poisoning as well as of other kinds of food poisoning should serve to impress everybody that lots of trouble may be escaped by refusing to eat any food which looks, smells or tastes "queer." So virulent is this poison that death has resulted from merely tasting suspected food.

However so far as danger from botulinus poisoning is concerned we know that heat of boiling water at the sea level sustained for forty minutes and thoroughly penetrating the food will destroy the toxicity of the botulinus toxin which may be present in any food. The destruction of the spores of the bacilli is a much more difficult matter. A boiling temperature (212 degrees Fahrenheit) for any less

than six hours is to be regarded as unsafe, and practically, therefore, it is advisable to take measures to secure a higher temperature besides making sure that this heat will penetrate every part of the can or container in which the foodstuff is being preserved. Fatal cases of poisoning frequently arise from the home preserving of food and especially in altitudes at which the boiling point of water is less than 212 degrees Fahrenheit.

Symptoms of poisoning from a mineral poison like arsenic for example may be expected to come on soon after taking the poisonous food. Symptoms arising from protein sensitivity may not be long delayed. Even food poisoning from bacterial activity may present symptoms two or three hours after eating the poisonous or contaminated food. It is claimed that symptoms of botulism poisoning have manifested themselves within this time. But as a rule poisoning resulting from bacterial contamination of food is more likely to appear twelve hours after eating than two or three hours. Sickness occurring immediately after eating is almost sure to be due to something eaten at a previous meal provided mineral poisoning can be excluded. It is for this reason that people usually ascribe food poisoning to the wrong article of food. It is curious how often candy is wrongly blamed for symptoms of food poisoning. The common cases of family food poisoning, accompanied by pain, vomiting and diarrhea will very often be found to be due to some article of food which has been kept for six, twelve, or perhaps twenty-four hours after being prepared and eaten without being heated or recooked, especially if it be a food which required handling in its preparation. Old salads, chowders, chopped meat, veal loaves, etc., are frequently identified as causes of food poisoning and contamination by the fingers of human paratyphoid bacilli carriers are often discovered to be the cause. The laboratory examination of stools will usually serve to identify the cause of food poisoning due to the bacillus enteritidis or the paratyphoid bacilli.

In botulinus poisoning there may be early, within a few hours after taking, the poisonous, gastro-intestinal symptoms which we are accustomed to associate with food poisoning, but usually the story is very different. Apart from noticeable constipation the first symptoms are usually referable to the nervous system and appear from eighteen to thirty-six hours or possibly not until several days after eating the poisonous food. Dizziness and disturbances of vision and difficulty in swallowing and talking, and general weakness or in other words muscular impairment resulting from the effects of the poison on the nervous system, are usually the first symptoms. Naturally, therefore, botulinus poisoning is likely to be confused with various acute diseases of the central nervous system, especially

with encephalitis lethargica. Botulinus poisoning may even produce lesions in the brain so similar to those of encephalitis lethargica that the two diseases have been confused on autopsy.

The mortality from botulinus poisoning is very high, reaching 100 per cent in some outbreaks. It would appear that the earlier the symptoms appear the graver the prognosis. It is also suspected that the two types of botulinus bacillus which have been identified possess a distinct difference in virulence.

A botulinus antitoxin has been prepared and proves effective in laboratory experiments on animals when given promptly. It is available for human administration but up to the present no case is reported in which it has been given to a human being early enough to make it probable that it has prevented the death of a human being.

ADDRESS OF HON. JAMES M. CURLEY, BEFORE THE FIRST GENERAL SESSION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION, BOSTON, MASS.

Mr. Chairman, Ladies and Gentlemen: It is a source of exceeding pleasure to extend the greetings of the City of Boston and the good wishes of the women and men of Boston to an organization that means so much to America as that organization of which you are members. The field of health work, municipally, is largely similar to other departmental activities in American municipalities. Conduct of municipal activities in any department of an American city is largely an uncharted science and each time that an administration changes, the new party coming into control invariably presents its ideas and if sufficiently forceful compels the acceptance of those ideas whether they bode good or ill to the community.

I rejoice that in our city we have been making some progress in the matter of the protection of public health, and it has been our observation that there are so many problems allied to the work of a health bureau that may be properly considered under the head of conservation work, for the conduct of health activities neither has a beginning nor an ending in the health bureau of a large city.

I had sincerely hoped that on the occasion of this convention being held in Boston that it might be our privilege to present an opportunity to the visiting delegates to inspect the most complete health-unit to be found in any portion of the entire world, a unit made possible through the generosity of a great Boston citizen whose confidence in our system of government exceeded that of any other public-spirited man of whom I have ever heard or read, since he

left a benefaction representing in excess of five millions of dollars, to be administered by the political agencies who might be in control of the city. It was an expression of confidence at a time when public officials were regarded more or less with suspicion that certainly was commendable as well as courageous.

We are endeavoring to measure up to the courage which he displayed and to the opportunity which his gift made possible, and we have selected as a site for the first health-unit the most congested section of Boston, and in that selection of a site we have begun a character of health work that might very well be adopted in every municipality in the entire world.

We have had with us from the beginning of time, according to Scripture, the poor, and we have had something else — we have had what is known as the slum section in every large city, both in Europe and in America. There is only one solution of the slum-tenement problem, and that is the courageous and wise expenditure of public money; and in the selection of a site for the health-unit, we have seen fit to raze a half acre of the most unsightly and unhealthful tenement properties in the entire City of Boston, and on that site we are going to raise the health-unit. We are going to surround it with a park and for the first time in the history of our city, we are going to create a clearing house where all the various health activities represented by well-intentioned women and men, whose energies are often misdirected and whose activities not infrequently represent an unnecessary expenditure fifteen to twenty times what it should be in the matter of overhead. We are going to concentrate their activities, establish a clearing house and make possible a return of more than five cents on the dollar for what is raised for health purposes. I think we are going to be successful. At least, I hope we are, and I believe we will be.

We established a health-unit in the West End of Boston, the most congested section of the city, prior to the location in the North End, in 1916, and in 1917, 28,000 mothers and children were treated at the health-unit. As a consequence of the confidence developed, on the part of both children and parents, it was possible, during the period of the World War, when America received one of the two contributions that came from the war, influenza, to establish a lower death rate in the West End section of Boston than is obtained even in the more healthful and exclusive precincts of our neighboring town of Brookline.

Now, if it be possible to establish that condition in the most congested center of the city, you have some conception of the possibilities when we have created one of these health-units in every congested center of Boston and brought together in unity of action

and purpose and concentration of effort, all of the various agencies designed for the protection and conservation of public health.

I rejoice that we are meeting our situation with courage and meeting it with vision, under a man who physically measures up to any health official in the United States, and I believe measures up equally as well mentally — Doctor Mahoney of the Boston Health Department.

After all, I sometimes wonder if the field of public health work isn't just a little bit broader than investigation, the development of statistical data and the frequent consultation of the pulse of the individual. I wonder if there are any of us who give any consideration to the progress that has been made in the combatting of tuberculosis, and to the agencies, distinct and apart from public health agencies, that have been contributing factors to the reduction in the mortality rate from tuberculosis.

In our city, in a period of ten years, we have reduced the number of deaths from tuberculosis from about 1,100 to 722 last year, and this year we hope to reduce it to below 700. I personally believe that one of the most important contributing factors to that reduction in the tuberculosis mortality rate has been the saving that came out of the World War and that was only possible as a consequence of the male shortage during that period.

I believe that one of the other great contributing factors was the adoption of the Mothers' Aid Act in 1914 in this Commonwealth, which made it possible for the mother on the death of the head of the household, or what is generally regarded as the head of the household, the male contributor, to receive sufficient aid from the Commonwealth and from the municipality to make possible the retention of the family unity, and afford the children an opportunity to develop and grow under the best agency for children that humanity has ever known, the mother that brought them into the world. I believe that has been a contributing factor, and a most important one, and then the legislation with reference to the employment in industry of children has added its influence

I believe that one of the greatest contributions to health work possible in the United States of America would be a workable child-labor law that would relieve from the bondage of child slavery the million and a half children under fourteen years of age that are today consumed in industry for the increasing of the dividends in industries that really have forfeited the right to exist.

But I appreciate it is a long problem to get anywhere on those particular lines. Nevertheless we are making some progress and if your organization in its wisdom sees fit to visit our city about 1930,

when the head of the Health Department, myself, and other officials connected with it have retired to a more restful and pleasing occupation than holding public office, those who succeed us will be in a position to afford you an opportunity to inspect the best health-unit system that obtains in the entire United States, and present to you a city that is meeting its problems with courage, with vision, with confidence in itself, and with a spirit of self-reliance that justify the success that is attending its efforts. It is a source of joy to welcome you here. It will be an equally great pleasure to accept of such helpful recommendations as may result in consequence of your convention.

I bid you a most happy time in the most historic and the best beloved city of the world — Boston. (Applause.)

AN OBITUARY ON THE DEATH OF PAUL CARSON, M. D., FORMER PORT PHYSICIAN OF BOSTON.

Dr. Paul Carson died November 27, 1923, at his home, 137 Peterborough street, Boston. Funeral services were held at Mt. Auburn Chapel at 2 p. m. the following Friday

Doctor Carson was born in Akron, Ohio, but when a child moved to Randolph, N. Y. He graduated from Dartmouth College in 1891 and from the Dartmouth Medical School in 1894.

In 1896 Doctor Carson was appointed assistant port physician of Boston and physician at Deer Island; and in December of the same year was promoted to the position of port physician, with offices, quarters and hospital and laboratory at Gallop's Island, Boston Harbor. He served in this position for fifteen years, and in 1911 was appointed chief of the division of child hygiene of the Boston Health Department which he organized. He later resigned this position to take up private practice and to engage in special work for the United Fruit Company in connection with South American sanitary and medical conditions. During 1921 and 1922, in emergencies, he also served the Boston Health Department as medical inspector, but failing health compelled him to discontinue his services.

Doctor Carson was an expert on the diagnosis and treatment of smallpox and various exotic diseases. He handled hundreds of cases of smallpox during the epidemic of 1900 and 1902 and he profited from his opportunity to study the rare diseases which he as quarantine officer removed from time to time from incoming ships. Up to the time the United States Public Health Service took over

the quarantine station at Gallop's Island, all cases of leprosy were cared for by Doctor Carson at the hospital and detention quarters on the island.

Doctor Carson was a big man physically, and mentally also. His physical stature was an indication of the depth of his character, his fine nature and sunny disposition. He had an intimate and extended friendship with the masters of all ships and steamers entering Boston Harbor from all ports of the world; and to them, as to his friends ashore, Doctor Carson was familiarly known as "Kit."

THE BETTER BABIES' CONFERENCE OF THE BOSTON HEALTH DEPARTMENT.

The great publicity which the Boston Health Show received during health week in Boston was made possible by the magnanimity of the Boston press and particularly the *Boston American* in giving special space daily to the better baby contest which was conducted by the health show promoters.

There were over 800 babies examined during the week, babies from all sections of Greater Boston and even from without the metropolitan district entirely, were given a thorough physical examination. This examination was conducted on a scientific basis, by recognized experts in the various phases of child welfare, and surely was productive of the best possible result to mothers of the babies who were entered in the contest. Why? The examination was divided into five distinct parts: First, the mental test, which determined from certain standards whether or not the child, according to its age and development, had approached the normal stage in mentality; second, the general physical examination which was very carefully conducted to classify the baby correctly from the standpoint of the competition and for health purposes; third, the oral and dental examination, which specialized the examination of the child in these conditions; fourth, the eye, ear, nose and throat examination, which also specially classified the child by examination; and fifth, the miscellaneous and general review of all the parts of the examination. There is no question that this examination was thorough, complete and adequate to determine the best baby in the contest as compared with the perfect baby which might be considered to be represented by the perfect standard for each phase of the examinations which the competing baby passed through.

The mother of each baby, whether the baby was successful in winning a better baby prize, or not, has received a copy of the actual score made by her baby in the contest, and from that she

can see for herself just where her own baby failed to measure up to the standards which made it possible for other babies to be given a better baby prize. The lesson that should be taught by these scores is that there are certain aspects of the physical condition of the baby which are below the standard of the normal baby, and which may undoubtedly be corrected. It is for the purpose of bringing home to the mothers whose babies were entered that these copies of the scores received were sent to them so that they may see for themselves what is wrong, if anything is wrong, and so that they may undertake to correct it, at once, to insure their babies starting in life with the best impetus in the world, good health.

Moreover, the mothers of those babies who were not successful in winning a better baby prize should not feel that their babies are not normal. Rather they should feel that the babies were found to be lacking simply in the proportions of perfection of standards which made it possible for the selected babies to be graded above the others. Undoubtedly no baby would have been entered if his mother did not feel that he was a perfect baby, as every baby should be. That's what should be every competing mother's pride in her own baby, and having that pride, she should endeavor to have corrected whatever has been found to be lacking in the perfect standards which her baby should have. It is to be hoped, therefore, that the mothers of all these babies will contribute, unselfishly, to the enjoyment of good health by their babies in later years by giving them the advantage now of correction for those defects which may exist. No less a character than Phillips Brooks, American divine and author, native of Boston, has eulogized the virtues of those who assist children, by stating that "Anything that touches the life of children, that deals with the beginning of life, cannot help being hopeful. He who helps a child helps humanity with a distinctness which no other help given to human creatures can possibly give." Surely, therefore, unselfishness in this direction is of benefit.

Moreover, the results obtained at this recent baby contest, and the evident interest of mothers in its possibilities, induced the Boston Health Department to conduct under its own auspices in November a baby conference station. More than two thousand children, whose parents filled the coupon so graciously printed by the Boston American newspaper, have had a thorough physical and mental examination to determine their condition and fitness. The results found by the experts who supervised the examinations will likewise be sent to the mother of each child who participated in this conference, as was done after the better baby contest at the health show. No prizes were offered at this conference, but the value of the examinations is inestimable, because it affords a wonderful oppor-

tunity for each parent to learn of the true mental and physical condition of his child, and subsequently have these conditions corrected, if defective, so that a chronic condition will not result in later life.

This examination of a child is not a whim or fancy. It is not a fad, so called. When it is remembered that there is an annual toll in this state of 7,000 babies who died before reaching their first birthday, and that in Boston alone last year, 1,720 babies died before reaching the age of twelve months, it can readily be seen that any efforts tending to reduce infant mortality is far from a mere passing fancy or the mere gratification of an official whim or desire. Results are expected to bear tangible fruit, so that the number of infant deaths will decrease from the ratio of ninety-two deaths to every thousand babies born, as in 1922.

It should also be borne in mind that the period of infancy is a period of education said to be of greater consequence than any other two years of life. Not only are the organs and functions given their primary training, but the faculties of the mind receive those initial impulses that greatly determine their efficiency and direction through life. The brain of the infant is sensitive, and the impressions received in early life are remembered while later impressions are forgotten.

Let us not have in mind the continental idea of raising our boys to be soldiers, or that the infant of today will be the fighting man of tomorrow. If necessary, let us be selfish. Let us think that this infant just born will be our support in later life, a firm rock in the upbuilding of this republic, matured upon a good health foundation.

Let us remember that every mother has suffered with the birth of a baby. Let her compensate herself by seeing to it that her child is raised to man's or woman's estate as physically perfect as possible. and this can be done. Even though it has been said that we are all born but to die, or that we begin to die as soon as we are born, we are all entitled to a chance to live as long as possible, and in as perfect a state of health as possible.

The corps of trained physicians and nurses that performed these examinations should be thanked by the community, as their unselfishness is commendable. It is very much to be desired that this recent conference, as well as the better baby contest at the health show, will result not only in having defects found in children corrected, but will act as a stimulus to all participating mothers to have a yearly examination made of each child. An annual physical examination to young and old alike, but especially in the formative period of life has advantages which will reflect to the everlasting credit of unselfish parents, and bring to them the satisfaction that they have given their children a heritage of good health the possession of which is the first requisite of happiness.

A SURVEY OF THE QUALITY OF BOSTON MARKET MILK.

The following is the result of a survey made of market milk sold in Boston by dealers and chain stores during November. In Massachusetts the statute law requires a minimum of 12 per cent solids and 3.35 per cent of butter fat.

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Alden Brothers Company.....	12.66	3.76	16
Anderson, Oscar A.....	12.54	3.85	23
Antetomaso, Peter.....	12.20	3.50	6
R. Barden Creamery Company.....	12.87	4.30	115
Barron, C. W.....	14.23	4.90	14
Barry, Michael F.....	12.52	3.85	14
Bemis, Henry E.....	12.59	3.85	14
Bergmann, John H.....	12.88	4.00	11
Bolio, Mary J.....	12.99	4.45	22
Bowditch Estate, E. F.....	12.42	3.85	13
Brandley, P. J. & T. J.....	12.84	4.05	22
Brandon Farms Milk Company.....	12.44	3.80	72
Burns, James.....	12.37	3.80	16
Casey, James D.....	12.70	4.20	40
Cashin, James F.....	12.69	4.03	32
Cedar Hill Farm, Inc.....	12.88	4.25	5
Chapin, George L.....	12.50	3.80	18
Childs Brothers.....	12.32	3.61	31
Clark, Levi.....	12.27	3.60	27
Cohen, Benjamin.....	13.01	4.45	35
Corkery, John H.....	12.31	3.65	32
Creedon & Crowell.....	12.53	3.85	123
Cummings, F. S., Company.....	12.18	3.60	11
Cunningham, Paul.....	12.24	3.60	27
Cusick, William H.....	12.40	3.65	40
Deerfoot Farms Milk Company.....	12.75	3.96	15
Denehy, Timothy.....	12.64	3.97	12
DiMauro, Gaetano.....	12.66	3.80	30
Driscoll, W. B., Company.....	12.89	4.00	14
Duggan Brothers.....	12.44	3.75	16
Edgerly, Frank S.....	12.44	3.77	9
Elm Spring Farm Milk Company.....	12.28	3.62	22
English, John.....	12.63	3.92	18
Ferguson, Malcolm D.....	12.13	3.55	52
Floyd Milk Company.....	12.63	3.92	10

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Fortune & Allen.....	12.67	3.90	77
Garvin, Charles E.....	13.10	4.90	5
Giroux, J. E., & Co.....	12.54	3.80	104
Griffin, Joseph L.....	12.78	3.90	10
Griffin Brothers.....	13.04	4.07	22
Gushee, W. S. & C. W.....	12.17	3.60	51
Hagar, J. M., & Sons.....	12.58	3.70	19
Hancock, T. G., Company.....	12.57	3.86	18
Herlihy Brothers.....	12.68	4.00	35
Hickey, Martin J.....	12.74	4.10	12
Holden, John E.....	12.30	3.61	456
Hood, H. P., & Sons, Inc.....	12.35	3.71	52
Jones, William T., & Co., Inc.....	12.73	3.98	23
Kendall Brothers.....	12.28	3.65	26
Kennedy, Robert J., Jr.....	12.64	3.85	38
Kingston, Samuel.....	12.92	4.08	16
Klawe & Freeman.....	13.09	4.00	43
Knapp, George J.....	12.35	3.65	29
Kszywoszyi, Michael.....	12.40	3.50	7
Lang, Michale J.....	12.29	3.70	76
Larkin, Patrick.....	12.78	4.07	162
Larsson, Charles.....	12.62	3.85	10
Lesser, Joseph.....	12.46	3.55	26
Lincoln Farms, Inc.....	12.26	4.60	34
Lubin, Felix.....	12.70	3.95	11
Lyndonville Creamery Company.....	12.34	3.60	64
Magee, Nellie A.....	12.98	3.80	15
Manning, Peter E.....	12.58	3.70	64
Maple Farm Milk Company of Massachusetts.....	12.37	3.75	23
McAdams, John F.....	12.54	3.78	33
McGilvray, Charles D.....	13.00	4.30	16
McKernan, John.....	13.19	4.35	511
Moore, Peter.....	12.51	3.77	15
Munchbach, George.....	12.29	3.70	90
Newton & Pope.....	12.88	4.00	35
Noble, William F., & Sons.....	12.48	3.81	10
Rautenberg, Otto G.....	12.64	3.90	10
Raycraft, Benjamin F.....	12.98	4.22	10
Robinson, Albert J.....	12.68	3.93	14
Robinson, James A.....	12.52	3.73	462

NAME OF DEALER.	SOLIDS.	FAT.	Bacteria, Thousands in One Cubic Centimeter.
	Per Cent.	Per Cent.	
Runkle, John C.....	13.52	4.60	53
Schuster, Adam.....	12.34	3.62	26
Seven Oaks Dairy Company.....	12.57	3.83	23
Shick, Jacob.....	12.69	4.00	38
Smith & Lynch.....	12.68	3.85	17
Somerset Farms Milk Company.....	13.10	4.45	10
Sterling Farms Milk Company.....	12.70	3.76	10
Stone, Howard L.....	12.68	3.80	12
Stuart, Wallis E.....	13.09	3.95	10
Sullivan, John D.....	12.85	4.00	12
Sullivan, John L.....	12.40	3.90	10
Turner Center System, Inc.....	12.51	3.73	365
Upland Farms Milk Company.....	14.05	4.60	17
Vartanian, Setrag.....	12.10	3.60	14
Vartanian, Gazar.....	12.05	3.60	40
Walker-Gordon Laboratory Company.....	12.39	3.83	16
Ware, George H.....	12.48	3.73	13
Weiler, E., & Sons.....	12.63	3.90	75
Werner, Ferdinand.....	12.41	3.66	23
Westwood Farms Milk Company.....	12.39	3.73	17
White Brothers.....	12.73	4.00	14
Whiting Milk Companies.....	12.34	3.67	36
Whittemore, Warner D.....	12.58	3.90	12
Wiswall, Granville A.....	12.57	3.77	23
Wittenberg & Co.....	12.55	3.80	498
Woodland, Charles.....	11.98	3.56	22

ELIMINATE DRY SWEEPING.

Dust whether containing pathogenic bacteria or not, and depending on the character and the amount, is irritating to the mucous membrane of the nose, throat and eye, and if all of it does not carry disease, the irritation caused by it is the contributing factor to colds and sometimes to other respiratory diseases.

The dirt and dust raised by dry sweeping or similar agitation in the home, the food establishment, or the street, is unhygienic, insanitary, uncomfortable, and dangerous.

The duster, the broom, the dust cloth, and other dry sweeping and cleaning methods that simply change the location of the dust have no place in the clean household or food establishment. The vacuum or suction method is simple, safe, clean and labor saving.

CHAIN STORES MILK.

NAME OF DEALER.	Supplied by.	SOLIDS.	FAT.	Bacteria. Thousands in One Cubic Centimeter.
		Per Cent.	Per Cent.	
The Great Atlantic & Pacific Tea Company.	H. P. Hood & Sons, Inc....	12.40	3.82	38
The Cloverdale Company.....	Turner Centre System.....	12.36	3.70	13
John T. Connor Company.....	Bellows Falls Co-operative Creamery Company.	12.66	4.00	19
Co-operative Grocery Company,	J. M. Hagar & Sons, Inc. . .	12.58	3.67	71
Economy Grocery Company....	Turner Centre System.....	12.54	3.80	70
First National Stores, Ltd.....	Turner Centre System.....	12.49	3.75	38
Morgan Brothers Company....	Whiting Milk Companies... .	12.33	3.75	27
M. O'Keeffe, Inc.....	J. M. Hagar & Sons, Inc. . .	12.53	3.75	31
Rose Tea Company.....	H. P. Hood & Sons, Inc., and Whiting Milk Com- panies.	12.41	3.85	89
Winer, Hyman.....	Hyman Winer.....	12.52	3.77	20

A PROBABLE LOW INFANT DEATH RATE FOR 1923.

Compilation of vital statistics during the past few months, especially with reference to infant mortality, indicates a probability that 1923 will record an historically low infant death rate.

During the first ten months of the year 1923 as compared with the corresponding period during the year 1922 increases were shown in the infant deaths from the following reportable diseases: Measles, scarlet fever, whooping cough, influenza, encephalitis lethargica, cerebro-spinal meningitis, and lobar pneumonia. The amount of the increase is shown on the table below. In the same comparative period decreases were shown in the number of infant deaths from diphtheria and tuberculosis.

Increases, other than those in the reportable disease group, were apparent in the classification, "Injuries at Birth," 30; diseases of the ears, 9, and broncho-pneumonia, 4.

The deaths from diarrhea and enteritis showed a decrease of 58, those due to congenital malformations showed a net decrease of 32 deaths; premature births declined 34, and those classified as "Other Causes in Early Infancy" diminished by 22.

The total deaths from all causes among children under one year, for the ten-month periods during the past three years, were 1,308 in 1923, 1,428 in 1922, and 1,272 in 1921. Assuming that the same proportion of infant deaths which obtained during the ten-month period in 1923 is maintained throughout the following two months,

the infant mortality rate would be 84.51 for 1923. Actual infant death rate for 1922 was 92.71 and for 1921 it was 77.27.

Summarizing the foregoing it may be seen that the year 1923 will in all probability have a lower infant death rate than did 1922, but a higher rate than 1921. Furthermore, this 1923 rate of approximately 84.51 will be the second lowest rate ever recorded for infant mortality in Boston.

Infant Mortality in Boston During the First Ten Months of 1923 Compared with First Ten Months of 1922.

CAUSE OF DEATH.	1923.	1922.	Fluctuations in 1923.
Measles.....	16	11	+5
Scarlet fever.....	7	3	+4
Whooping cough.....	50	33	+17
Diphtheria.....	6	12	-6
Influenza.....	7	4	+3
Erysipelas.....	6	17	-11
Encephalitis lethargica.....	3	.....	+3
Cerebro-spinal meningitis (epidemic).....	3	1	+2
Pulmonary tuberculosis.....	12	15	-3
Tuberculosis, other forms.....	11	20	-9
Syphilis.....	11	20	-9
Diseases of thymus gland.....	7	7	-
Simple meningitis.....	10	8	+2
Infantile convulsions.....	7	9	-2
Other diseases of nervous system.....	4	1	+3
Otitis media.....	16	10	+6
Mastoiditis.....	3	.....	+3
Diseases of lymphatics.....	6	6	-
Bronchitis.....	16	21	-5
Broncho pneumonia.....	212	208	+4
Lobar pneumonia.....	41	37	+4
Diarrhea and enteritis.....	112	170	-58
Intestinal obstruction.....	8	7	+1
Hydrocephalus.....	19	12	+7
Congenital valvular heart disease.....	68	94	-26
Other congenital malformations.....	33	46	-13
Icterus and sclerema.....	13	14	-1
Premature birth.....	281	315	-34
Injury at birth.....	115	85	+30
Other causes in early infancy.....	137	159	-22
All other causes.....	68	83	-15
Totals for ten-month period.....	1,308	1,428	-120

SUMMARY OF THE WORK, NOVEMBER, 1923.

BUREAU OF ADMINISTRATION.

	Nov.	Oct.		Nov.	Oct.
Hearings authorized	3	2	Personnel:		
Prosecutions ordered	17	11	Appointments	6	3
Prosecutions withdrawn,	0	1	Probationary	0	1
Dump applications ap-			Provisional	1	1
proved	8	1	Temporary	1	0
Offensive trades ap-			Transfers to depart-		
proved	1	2	ment	0	1
Legal notices	3	268	Services terminated	1	0
Lying-In Hospitals cer-			Leaves of absence	1	1
tified	3	2	Promotions	6	5
Demolition orders	1	9	Resignations	1	1
Vacate notices	1	1	Beverage licenses:		
Sewer location approved,	0	1	Disapproved	1	1
Special drafts	0	1	Suspended	1	1
Budget transfers	3	0	Restored	1	1
Regulations amended	1	0			

LICENSES, PERMITS, ETC., ISSUED

	Nov.	Oct.		Nov.	Oct.
Burial permits	986	974	Undertaker's license		
Milk licenses	167	158	granted	1	0
Pedlers' licenses:			Undertaker's license re-		
Granted	145	44	voked	1	0
Hen permit extended	0	1	Provisionally	1	2
Hen licenses granted	48	67	Denatured alcohol li-		
Stable permit finally			censes	19	1
granted	4	0	Manicure-massage:		
Stable permit granted			Granted	26	26
provisionally	1	1	Dumps	5	2
Stable permit revoked	1	0	Beverage licenses	0	1

MEDICAL DIVISION.

COMMUNICABLE DISEASES.

	Nov.	Oct.		Nov.	Oct.
Visits by medical inspec-			Visits by nurses	4,738	2,137
tors	2,591	1,383	Cases brought to Boston		
Visits by veterinarian	0	14	for treatment	72	93
Visits by investigators	0	350	Antitoxin administered	47	37
Deaths investigated	17	0	Schick tests	3,107	226
Vaccinations	26	37	Schick readings	1,808	87
Vaccination certificates	6	18	Toxin-antitoxin injec-		
			tions	2,530	287

MONTHLY REPORT OF VENEREAL DISEASE ACTIVITIES, NOVEMBER, 1923.

SYPHILIS.

Current cases under investigation November 1, 1923	28
New cases assigned during the month	27
Total	55

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	8
Further treatment unnecessary	0
Not located:	
Search abandoned	9
Under investigation November 30, 1923	36
Total	<u>55</u>

GONORRHEA.

Current cases under investigation November 1, 1923	48
New cases assigned during the month	74
Total	<u>122</u>

DISPOSITION OF CASES.

Located:	
Under treatment	0
Placed under treatment	22
Further treatment unnecessary	2
Not located:	
Search abandoned	26
Fraudulent use of name	0
Under investigation November 30, 1923	72
Total	<u>122</u>

SUMMARY.

Current cases under investigation November 1, 1923	76
New cases assigned during the month	101
Total	<u>177</u>

DISPOSITION OF CASES.

Located:	
Under treatment	2
Placed under treatment	30
Further treatment unnecessary	2
Not located:	
Search abandoned	35
Fraudulent use of name	0
Under investigation November 30, 1923	108
Total	<u>177</u>
Form letters mailed to above patients	97
Form letters unclaimed returned from post office	51
Form letters accepted by patients	46
Venereal disease complaints	9
New cases	2
Under investigation November 1, 1923	7

Disposition of complaints:

Unable to locate	1
Under investigation November 30, 1923	8
Visits by investigators	424

HEALTH UNIT (Blossom Street).

	Nov.	Oct.
Health Department proper:		
Vaccinations	27	47
Vaccination certificates issued	13	33
Antitoxin, anti-typhoid and toxin-antitoxin injections	364	34
Children examined for camps and day nurseries	11	8
Visits made by medical inspector	71	57
Dental clinic:		
Number of operations	1,194	1,124
Number of dismissals	205	217
Number of children treated	654	474
Nutrition Service:		
Number of conferences	4	2
Attendance at conferences	44	20
Number of home visits	200	17
Nose and Throat Service:		
Number of conferences	4	1
Number of examinations	262	46
Adenoids and tonsils operations recommended	42	12
Cases visited by nurses:		
Medical	358	246
Babies	451	272
Visits to children of pre-school age	163	0
Complaints of insanitary conditions	17	17
Visitors:		
Resident	27	5
Nonresident	8	13
General:		
Persons applying for information	424	484
Community Health Association:		
Child Hygiene Division:		
New babies admitted	53	30
Home visits to babies	1,106	*
Number of conferences	11	12
Attendance at conferences	429	381
General:		
Visits made by nurses	2,158	3,166
Boston Dispensary:		
Calls by district physician	56	52
Boston Sanatorium:		
Calls by nurses in district	837	817
Jewish Welfare Center:		
Nutrition conferences:		
Number	0	1
Attendance	0	15

[* See "General visits by nurses."]

Nutrition Classes:	Nov.	Oct.
Number	5	0
Attendance	121	0

CHILD HYGIENE DIVISION.

	Nov.	
Visits to new cases	772	
Visits to old cases	2,318	
Wrong address	161	
Cases not seen	407	
Dead	3	
Feedings:		
Breast	1,689	
Formula	382	
Formula and Breast	430	
Diet	18	
Condition:		
Excellent	251	
Good	2,155	
Fair	95	
Sick	8	
Defective Conditions Found:		
Ophthalmia	91	
Investigations on deaths	129	
Instructions:		
Weight	102	
General	207	
Baby clinic	94	
Miscellaneous:		
Family doctor	17	
Hospitals	3	

FOOD INSPECTION DIVISION.

MARKET, STORE AND RESTAURANT SERVICE.

	Nov.	Oct.
New reports	4,439	3,367
Stores inspected	5,148	3,979
Sanitary defects remedied	171	86
Complaints at office	50	50
Referred to Sanitary Division	7	7
Milk applications	149	127
Peddlers:		
Applications for licenses approved	24	49
Vehicles inspected and approved	51	558
Court cases	1	3
Fines	\$400	0
Laboratory Examinations:		
Bacteriological	1	0
Chemical	0	1

CONDEMNATIONS.

REQUESTED.

India pears	125 cases
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NOT REQUESTED.

Bread (loaf)	1	Fowl	4 pounds
Beef trimmings	50 pounds	Milk	4½ quarts
Candy	74 pounds	Pie	1
Chicken	441 pounds	Pork	449 pounds
Corn beef	745 pounds	Squash	4½ tons
Coons	79 pounds	Tomatoes	22,050 pounds
Deer	2	Turkeys	501½ pounds
Eggs	9½ dozen	Poultry	324 pounds

LIVE STOCK INSPECTION (Brighton Abattoir).

	Nov.	Oct.		Nov.	Oct.
Cattle inspected	260	358	Sheep inspected	19	3
Calves inspected	1,124	1,540	Parts condemned	233	265
Swine inspected	5,211	5,153	Animals condemned	5	12

DAIRY DIVISION.

	Nov.	Oct.		Nov.	Oct.
Total inspections	1,390	1,150	Inactive	11	30
Dairies inspected	587	728	Total cattle inspected	8,690	12,667
Scoring above 50 *	369	451	Inspection of milk plants		
Scoring below	218	277	and licensed dealers	382	392
With milk rooms	370	412	Bacteriological examina-		
Without milk rooms	217	316	tions	410	0

* Passable mark.

BUREAU OF MILK INSPECTION.

	Nov.	Oct.		Nov.	Oct.
Chemical inspection of:			Bacteriological examination of:		
Milk	1,218	1,248	Milk	589	565
Vinegar	65	120	Ice cream	73	41
Ice cream	12	2	Court cases	14	9
Butter	1	1	Fines	\$455	\$155
Miscellaneous	6	6			

SANITARY INSPECTION.

	Nov.	Oct.		Nov.	Oct.
Original inspections	*	1,953	Complaints	*	742
New reports	*	2,681	Court cases	*	15
Reinspections	*	7,187	Vacate notices	*	2
Legal notices served	*	218	Fines	*	\$45

* Figures not available.

BACTERIOLOGICAL LABORATORY.

	Nov.	Oct.
Examinations for diagnosis and release:		
Diphtheria	2,066	1,660
Tuberculosis	254	261
Typhoid	47	55
Gonorrhea	686	758
Gonorrheal Ophthalmia	58	53
Syphilis	1,308	1,495
Other examinations	33*	29
Bacteriological examinations of milk	589	565
Bacteriological examinations of ice cream	73	41

* Dog for rabies, 1; genito-urinary tuberculosis, 4; dark field examinations, 6; paratyphoid, 7; cultures for virulence, 12; cake for poisons, 1; figs for poison, 1; pus from sore, 1.

VITAL STATISTICS, NOVEMBER, 1923.

BIRTHS, REPORTABLE ILLNESS, AND DEATHS IN BOSTON DURING NOVEMBER, 1923, WITH COMPARATIVE FIGURES FOR NOVEMBER, 1922.

	BIRTHS AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
ALL CAUSES:						
Total deaths.....	821	952	—131	12.79	14.95	—2.16
Nonresidents deducted.....	670	802	—132	10.44	12.59	—2.15
By AGE:						
Under one year.....	120	130	—10	1.87	2.04	— .17
One year to four years, inclusive.....	33	51	—18	.51	.80	— .29
Sixty years and over.....	317	361	—44	4.94	5.67	— .73
By SPECIAL CAUSES:						
DEGENERATIVE DISEASES, So CALLED:						
Apoplexy.....	65	67	—2	1.01	1.05	— .04
Arterio-sclerosis.....	30	38	—8	.47	.60	— .13
Heart disease.....	142	155	—13	2.21	2.43	— .22
Nephritis, chronic.....	37	64	—27	.58	1.00	— .42
INFANT AND MATERNAL MORTALITY:						
a. Total registered live births.....	1,515	1,407	+108	23.60	22.10	+1.50
b. Registered stillbirths.....	53	49	+4	.82	.77	+ .05
Stillbirths per 1,000 births and stillbirths,				33.80	33.65	+ .15
c. Deaths of mothers from causes incident to childbirth.....	11	9	+2	.17	.14	+ .03
Deaths of mothers per 1,000 births and stillbirths.....				7.01	6.18	+ .83
Deaths of children in first year of life... ..	120	130	—10	1.87	2.04	— .17
Deaths in first year per 1,000 live births,				79.21	92.39	—13.18
VIOLENCE:						
Accidents.....	50	42	+8	.79	.66	+ .13
Homicides.....	2	1	+1	.03	.016	+ .01
Suicides.....	9	5	+4	.14	.08	+ .06
MISCELLANEOUS:						
Alcoholism, acute or chronic.....	15	7	+8	.23	.11	+ .12
Broncho-pneumonia.....	39	55	—16	.61	.86	— .25
Cancer.....	91	98	—7	1.42	1.54	— .12
Cirrhosis of the liver.....	6	1	+5	.09	0.16	+ .07
Diabetes mellitus.....	13	22	—9	.20	.34	— .14
Diarrhoeal diseases, children under two years of age.....	10	17	—7	.15	.27	— .12

BIRTHS, REPORTABLE ILLNESS AND DEATHS IN BOSTON, — Concluded.

	CASES AND DEATHS.					
	ACTUAL NUMBER.			RATE PER 1,000 POPULATION, EXCEPT WHERE OTHERWISE SPECIFIED.		
	1923.	1922.	Increase or Decrease.	1923.	1922.	Increase or Decrease.
COMMUNICABLE DISEASES:						
Anterior poliomyelitis.....	Cases... 12	13	—1	.19	.20	— .01
	Deaths.. 1	—	+1	.016	—	+ .016
Cerebro-spinal meningitis.....	Cases... 1	8	—7	.016	.12	— .10
	Deaths.. 1	2	—1	.016	.03	— .01
Diphtheria.....	Cases... 317	290	+27	4.94	4.55	+ .39
	Deaths.. 15	17	—2	.23	.27	— .04
Influenza.....	Cases... 6	12	—6	.09	.19	— .10
	Deaths.. 3	1	+2	.04	.016	+ .02
Measles.....	Cases... 170	240	—70	2.65	3.76	— .111
	Deaths.. —	4	—4	—	.06	— .06
Pneumonia (lobar).....	Cases... 97	116	—19	1.51	1.82	— .31
	Deaths.. 32	65	—33	.50	1.02	— .52
Scarlet fever.....	Cases... 319	165	+154	4.97	2.59	+2.38
	Deaths.. 1	2	—1	.016	.03	— .01
Tuberculosis (pulmonary).....	Cases... 138	174	—36	2.15	2.73	— .58
	Deaths.. 49	51	—2	.76	.80	— .04
Tuberculosis (other forms).....	Cases... 24	21	+3	.37	.33	+ .04
	Deaths.. 5	9	—4	.08	.14	— .06
Typhoid fever.....	Cases... 7	10	—3	.11	.15	— .04
	Deaths.. 2	1	+1	.03	.016	+ .01
Whooping cough.....	Cases... 33	178	—145	.51	2.80	—2.29
	Deaths.. —	8	—8	—	.12	— .12

The foregoing tables include all deaths known to have occurred in Boston. No deductions have been made for nonresidents, except in the one line where the deaths of residents are specifically stated as such. The word "nonresident" here means a person whose usual place of abode is elsewhere than in Boston.

All deaths of infants have been included as deaths and not as stillbirths, if so reported by the attending physician, the rule being to report as a death every case in which the infant died after having manifested any sign of life whatsoever after birth.

Death rates of mothers from causes incident to pregnancy and childbirth, and stillbirth rates, are computed on the basis of the recorded number of births and stillbirths taken together, per 1,000. Death rates of children under one year old are computed on the basis of the number of recorded live births per 1,000.

For the purpose of computations set forth above, the estimated population for July 1, 1923 (midyear), based upon the federal census of 1920, has been used.

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